The Journal of the
# American Medical Association

VOL. XXII. CHICAGO, FEBRUARY 3, 1894. No. 5.

## ORIGINAL ARTICLES.

### HISTORICAL, CHEMICAL, PHYSIOLOGICAL AND THERAPEUTIC NOTES ON THE MEDICINAL PROPERTIES AND VALUE OF THE SULPHITES AND HYPOSULPHITES.

BY JOSEPH JONES, M.D., LL.D.

PROFESSOR OF CHEMISTRY, TOXICOLOGY AND MEDICAL JURISPRUDENCE IN MEDICAL DEPARTMENT, TULANE UNIVERSITY OF LOUISIANA.

A—HISTORICAL.

Notwithstanding the use of sulphur in former days and of hyposulphites as anti-fermentive or anti-zymotic in the dissecting room, in certain cases and occasionally in medical practice, no great attention was paid to this valuable class of remedies, until Burgreave (de Gaud) employed the sulphite of soda, in 1862, in solution as a lotion for healing different kinds of wounds. The advantages of this method may be summed up as follows: 1, anesthesia of the wound; 2, prevention of nervous accidents; 3, excitation of granulation and acceleration of cicatrization; 4, diminution of the quantity of pus, which it renders viscid, sweet, inodorous and neutral.

The value of the sulphites was fully confirmed by Constantin Paul, Farrini, Tagiuri, Gritti, Vignole, Galligo, Questa, Sagrini and Polli. Paul published his excellent article in *Le Bulletin Therapeutique* of 1865, Nov. 4, 5, 6, etc.

One of the first, if not positively the first medicinal application of the sulphites, was to the treatment of the sarcina ventriculi, a curious microscopic fungus, which was discovered in the stomach in certain cases of yeasty vomiting. This use of the remedy, was, I believe, made at the suggestion of Prof. Graham, and was founded on the fact familiar to him, that sulphurous acid is peculiarly hostile to the lower forms of vegetable life. The medicine was found effectual in the destruction of the sarcinæ, but had little effect in relieving the disease, of which the fungus was merely an attendant, and not a cause. Afterwards one of the sulphites was employed, upon the same principle, by Dr. Jenner of London, and others, with satisfactory results, in the treatment of cutaneous diseases known to be connected with or dependent on microscopic fungi in the skin. It was but a single step in advance to apply the remedy to the destruction of morbific fermentative processes believed to depend upon the action of the minute organisms always found associated with them. The idea of the use of this remedy seems to have first occurred to Dr. C. Polli of Milan, whose numerous experiments have gone far to prove the reality of such a power in the sulphites and their consequent applicability to the treatment of a large circle of diseases.

In April, 1866, Dr. Thaddeus L. Leavit of Germantown, Pa., published in the *American Journal of Medical Sciences*, pp. 388, 389, an interesting article entitled, "On the Use of the Hyposulphite of Soda in Intermittent Fever," from which we extract the following, as illustrating the theory upon which the sulphites and hyposulphites have been employed in Europe and America:

"Intermittent fever and its analogous affections result, as is generally believed, from a contamination of the blood caused by the introduction into it of organic poisons, generated by heat, and the decomposition of vegetable matter constituting the marsh miasma of writers. These vegetable germs or sporules floating in the atmosphere of malarial regions, each one in itself a living organic power, on entering the circulation act as a ferment, and the oft recorded results follow—the disturbance of the nerve centers, the blood thrown upon the internal organs, the chill, the reaction, Nature's mighty effort to establish an equilibrium in which she overshoots the mark and fever follows. Then the pouring out of the watery constituents of the blood in the sweat, the debility, etc."

This theory of the fermentation of the blood, though not by any means a new idea, is not universally believed, though indirectly proved by the success of the remedies exhibited. Dr. Samuel Jackson of this city, taught this doctrine in his late lectures at the University of Pennsylvania, and enthusiastically believed in the correctness of the theory of this ferment existing, as the *materies morbi* in the blood of the intermittent fever patient, and that any remedy that arrested and neutralized this action wrought a cure, hence the efficiency of cinchona and its preparations.

The powerful property of the sulphite of soda as an anti-ferment is a domestic fact well known to the farmer who, by its addition preserves his cider sweet for months. Acting upon these principles, this new remedy was administered with the following results:

Miss W., age 19, who resides in a malarious district was attacked with remittent fever, and continued for a few days without any medical advice, feeling miserable and unfitted for any duty. Finally the chill set in fairly, morning, noon, and night, with scarcely a cessation of a few minutes between the stages. Sulphate of quinia was administered immediately in varying doses and its constant use continued until at the end of four weeks the stomach became intolerant and not the slightest influence on the regular routine of chill, fever and sweat was perceptible; the patient also suffered from excessive nervousness, which somewhat complicated her case. Quinia was again, after two days' suspension, renewed, but with no remediable effect.

October 12. This afternoon I began with 15 grain doses every three hours, of the hyposulphite of soda in solution with a little orange flower water, which formed quite a pleasant preparation, to be continued through the night. At my visit the next morning at eleven o'clock, the pulse was eighty-four beats in a minute, and no chill had been felt, the first omission in the exacerbation for over four weeks.

The sulphite was continued for three days, and then at longer intervals and effected a perfect cure.

In those cases which resist the beneficial influences of quinia, the hyposulphite will prove of great value, while its rapid absorption and speedy action render it in congestive and malignant types, where

relief must be furnished immediately, a prompt and efficient remedy. The principle of its action holds good in all diseases of blood poisoning and of zymotic origin, hence the success of Polli of Milan, Cummins of Cork, and others. Dr. Leavit in 1866, speaks of the decay of the cinchona tree and warns us to seek in time a substitute for this most valuable drug, which he firmly believes is to be found in the hyposulphites.

In October, 1866, Dr. W. H. Baxter of Moscow, Iowa, writes to Prof. N. S. Davis that he was induced by Dr. Leavit's statement in the *American Journal of Medical Sciences* for April, as to the efficacy of the hyposulphite of soda in malarial fever, to employ that article. In the last month Dr. Baxter says he has treated over one hundred cases of simple intermittent and remittent fever with this remedy alone, and in no case has there been an exacerbation after taking the remedy a reasonable length of time. He gave it in 15 grain doses in solution in water. He has not trusted to this remedy alone in pernicious or malignant types.

Dr. Wood devotes considerable space in his "Therapeutics and Pharmacology," to the sulphites. The late Dr. Charles Turpin, a distinguished and accomplished physician of New Orleans, published a valuable article on "Sulphites and Hyposulphites" in the *New Orleans Medical and Surgical Journal*, for July, 1866.

### B—CHEMICAL AND PHYSICAL CHARACTER OF THE SULPHITES AND HYPOSULPHITES.

The sulphites are compounds of sulphurous acid and salifiable bases, and are employed, almost to the exclusion of sulphur itself and sulphurous acid, as internal remedies or prophylactics, in diseases supposed to have a zymotic origin. The special salts employed are the sulphites of soda, potassa, ammonia, magnesia, and lime. These salts are prepared by passing sulphurous acid through a solution of the alkalies or their carbonates. Such, at least, is the case with the sulphites of soda, potassa, and ammonia; but the less soluble of these salts, as the sulphites of magnesia and lime are more conveniently prepared in the way of double decomposition. If one of the soluble sulphites, but especially sulphite of soda or ammonia, be added to a soluble salt of the base, the sulphite of which it is designed to prepare, as the chlorid of magnesium or calcium, in solution, the sulphite of the base employed, as of magnesia, or of lime, will be precipitated. The sulphite of lime, however, may be procured, like the alkalin sulphites, by passing the acid gas through lime suspended in water (Thénard). In all instances, the evaporation should be carefully conducted so as not to drive off the acid, and with as little exposure to the air as possible; as the sulphites in solution are strongly disposed to absorb oxygen from the air, and thus pass into the state of sulphates. Even in the solid condition, they slowly undergo the same change; and they should, therefore, when prepared, be kept, so far as can be conveniently done, from contact with the atmosphere.

These salts have in general a sulphurous taste, and, on exposure to heat, or by the addition of an acid, emit the characteristic odor of sulphurous acid, familiar to every one as that arising from a burning sulphur match. As before stated, they are disposed to absorb oxygen from the air, and are finally converted into sulphates. They are distinguishable from the hyposulphites, which, though occasionally used, are thought to be less efficient, by depositing no sulphur when their solution is treated with diluted sulphuric acid. In both kinds, sulphurous acid escapes, known by its peculiar odor; but with the hyposulphites a deposit of sulphur takes place, which the hyposulphurous acid gives up, when converted into the sulphurous. As the sulphites all operate through the qualities of their acid, they may be used indiscriminately in relation to their efficiency, though some of them are preferred for peculiar qualities, regarding convenience and administration. The bisulphites are sometimes used indiscriminately with the sulphites, and it may not always be very easy to distinguish them. The bisulphites, however, are neutral to test-paper, while the proper sulphites have a slight alkalin reaction. They are prepared by passing sulphurous acid gas *in excess* though the alkalin solution (Thénard). They are probably quite as efficient as the sulphites, and perhaps more so in consequence of their larger proportion of acid.

The hyposulphites consist of salifiable bases, combined in equivalent proportions with hyposulphurous acid, which as now generally viewed is composed of two equivalents of sulphur and two of oxygen ($S_2O_2$). This acid, however, exists only in composition; being decomposed into sulphurous acid ($SO_2$) and sulphur when separated from its salts. The hyposulphites may be prepared by boiling a sulphite or bisulphite for some time with sulphur; in the former case, the sulphurous acid taking up an additional equivalent of sulphur; in the latter, one equivalent of the acid escaping, while its place is supplied with an equivalent of sulphur. The hyposulphites are more stable than the sulphites, passing with greater difficulty into the state of sulphites by contact with the air. The alkalin hyposulphites, as well as those of lime and magnesia, are very soluble in water. They are known by the precipitation of sulphur when decomposed by an acid (Thénard, 6e éd. iii. 280), 460), sulphite of soda. According to Berzelius (iii. the salts formed by passing sulphurous acid through a solution of carbonate of soda, until the liquid shall sensibly redden litmus paper, is the bisulphite of soda. If to this be added a quantity of soda equal to that already contained in it, the neutral sulphite results. This salt crystallizes in prisms, which have a feeble alkalin reaction, and a taste like that of sulphurous acid; are soluble in four times their weight of cold, and in somewhat less than their weight of boiling water, and on exposure to the air are converted into sulphate of soda; while the former salt or bisulphite is neutral to test-paper, and by exposure becomes the bisulphate. Sulphite of soda is among the sulphites most used, and is especially preferred for external application. Sulphite of potassa is obtained in the same manner as the preceding salt. It crystallizes in plates or needles, decrepitates when heated, and effervesces in the air, at the same time absorbing oxygen. Berzelius states that there is also a bisulphite which crystallizes more readily than the sulphite, but is usually confounded with it by authors. (iii. 389).

Sulphite of ammonia is formed when the two gases are brought into contact; but may, no doubt, be prepared like the others by passing sulphurous acid gas through a solution of carbonate of ammonia. It has an acrid sulphurous taste, becomes moist in the

air, and afterwards dries, having been converted into the sulphate. It is dissolved in its weight of cold, and in less than its weight of boiling water. When heated, it decrepitates, loses a part of its ammonia and water and then sublimes as supersulphite of ammonia.

Sulphite of magnesia may be prepared by double decomposition between any two soluble salts, the one of sulphurous acid, the other of magnesia; sulphite of magnesia being thrown down, when the two salts are mixed in solution. It is, as thus prepared, a white powder, but slightly soluble, of a pale, earthy taste, with a sulphurous after-taste, but less disagreeable than that of the more soluble salts. It is soluble in a solution of sulphurous acid which on evaporation yields transparent crystals. These dissolve in twenty parts of cold water, and effervesce upon the surface on exposure to the air. If the salt is exposed to a great heat in close vessels, the acid is driven off, and pure magnesia remains. It is preferred by some for internal use to all the other salts.

Sulphite of lime is also prepared most conveniently by double decomposition. It is a white powder requiring 800 parts of water for complete solution. By an excess of acid it is rendered more soluble, and from a hot saturated solution is deposited, on the cooling of the liquid, in long six-sided needles.

### C—PHYSIOLOGIC ACTION OF THE SULPHITES AND HYPOSULPHITES.

In accordance with the experiments of Polli, upon animals, neither vomiting, or diarrhea, or any general disturbance is observed as affecting dogs which have taken half an ounce (15 grammes) of the sulphite of soda or of magnesia. These experiments demonstrate that these salts, in doses of 2, 3 or 4 drachms daily, continued during ten to fifteen days, produce no inconvenience; and that, of all these preparations, the sulphite of lime appears to be the one best tolerated; and further, that autopsies made at several different periods of the treatment have always shown the intestinal mucous membrane in normal condition.

Experiments on man, similar to the above, have afforded like results. During the entire continuance of the treatment, the patients have presented only negative evidence of the action of these remedies, and especially have never voided sulphurous gas by any outlet. The urine remains clear, and free from ammoniacal odor, though long exposed to the air. A remarkable phenomenon, occurring in man, as in animals remains to be noticed, namely, that dead bodies and their fluids resist putrefaction when they have been impregnated with the sulphites. (Polli).

The sulphites remain in the body in the condition of sulphites, and are eliminated in the urine, where they are found undecomposed several hours after their injection, and they are not transformed into sulphates before the expiration of twenty-four hours. The reverse occurs with the hyposulphites, which preserve their characteristics intact though eliminated in the same manner. To test their presence, it is necessary to introduce a paper, rendered blue by the liquid of iodid of starch, into the mouth of a tube containing the urine previously acidulated with sulphuric acid. The paper loses its color if a hyposulphite is present.

Giving credit to the conscientious experiments of Polli and of Burgreave upon animals, it becomes difficult to refuse to admit: 1, that these salts exercise upon the economy a very marked action, an action almost specific in certain cases; 2, that their administration is able not only to retard death, but also to alleviate the symptoms of purulent infection, produced by the introduction into the circulatory system, in large doses of pus, or of blood rendered putrid by divers poisons, and to effect a cure in a marked number of such cases. Purulent infection, purulent diathesis and metastasis, phlebitis, pyemia, putrid infection, puerperal fever, form a group of septic diseases presenting a special character of putridity and a mixed alteration of liquids and solids. It is well known how grave the prognosis is in all these affections, and how powerless and uncertain are all therapeutic means. The indications can be much better met, and success becomes much more certain with the sulphites.

### D.—THERAPEUTIC ACTION OF THE SULPHITES AND HYPOSULPHITES.

Illustrating the idea of Jobert and Robin in regard to the analogy between ferments and the toxic agent which appears to play the principal part in purulent infection, Dr. Polli, by his theory and experiments, induced a large number of confrères to use the sulphites, who, by their labors (Tagiuri, Capparelli, de Ricci, Mirone, Rodolfo Rodolfi, Spencer Wells), have greatly contributed to generalize their employment, and to demonstrate the real services which they are capable of rendering. To prove this, it is only necessary to quote the words of Semmola, clinical professor at Naples, whose testimony is all the more weighty, since he does not partake of the enthusiasm of his confrères, and has endeavored to specify, as far as possible, the cases in which the uses of the sulphites may be advantageous: "The diseases against which the action of the sulphites is incontestably remarkable, are putrid infections, not resulting from a specific cause. Thus, pus in putrefaction, depraved intestinal chylification, abnormal urine, produce intoxications, against which the sulphites are almost specific They paralyze the action of the absorbed putrid substances, completely suppressing the putrid local emanations, provided that the topical applications of these remedies be added to their internal administration." In all the observations made, the dose of the sulphites has always been enormous (10, 15, 20 scruples in twenty-four hours), and their use long continued. Is this mode of employment a necessary condition for success?

The sulphites were indicated, in advance, in paludal intoxications, and the following table, prepared by Constantin Paul, illustrates the results obtained. It must not be forgotten that they are only substitutes for the sulphate of quinia, and that their action is much slower.

Fevers treated with the sulphites:

| | CASES. | SUCCESSFUL. | UNSUCCESSFUL. |
|---|---|---|---|
| Mazzolini | 403 | 336 | 36 |
| Capparelli | 1 | 1 | 0 |
| Poma | 15 | 7 | 8 |
| Lattini | 11 | 11 | 0 |
| Maraglio | 2 | 0 | 2 |
| Ferrini | 3 | 1 | 2 |
| Tagiuri | 2 | 0 | 2 |
| Total | 437 | 356 | 50 |

Ratio: cured, 81.46 in 100; unsuccessful, 11.44 in 100.
Fevers treated with quinin: Mazzolini, 184 cases; 102

cured; 82 relapses. Ratio: cured, 55.42 in 100; relapses, 44.56 in 100.

TYPHOID FEVER.

Before accepting the opinion of Dr. Polli in regard to the zymotic nature of typhoid fever, in which he admits the existence of a morbid and specific ferment susceptible of being neutralized by the sulphites, it is better to agree upon the signification of typhoid fever. This is difficult to accomplish, because of the difference of opinion as to the nature of typhus and typhoid fevers entertained by the various authorities, physicians of the French and English schools. Thus, by the French school, it is characterized by a lesion of inflammatory nature, seated in the glands of the Peyer and mesenteric ganglia, while the physicians of London, Edinburgh, and of Dublin, attach less importance to these lesions, because they have less occasion to observe them. This difference would probably continue to exist if the labors of Shattuck of Boston, of Gerhard and Pennock of Philadelphia, had not proved that there exists in the United States and England two diseases formerly confounded under the name of typhus fever, but really distinct and resembling each other only in some of the general phenomena. One, affecting young subjects, is the typhoid fever of the French school, while the other, common to all ages, is a distinct disease from the former, which bears the name of typhus fever.

As typhoid fever is less common in Italy than anywhere else, and as there is some doubt as to the nature of the typhoid fever treated by Terri, Parrigini, Finamore, Calapreta, Capparelli, Farrini, Tagiuri and Cavecri, it is best to abstain from forming any conclusions in regard to the results furnished by the sulphites in this disease.

A similar reserve will be maintained in regard to rubeola, scarlatina, variola, aartre, scorbutus, muguet, etc. In purulent catarrhs of the bladder and in cancers of the womb at a certain stage, injections of the sulphites are very active, either as disinfectants or as preventives or curatives of the nervous intoxication due to putrid fermentation (Semmola, Rodolfi, Capparelli).

I have thus endeavored to call the attention of the American medical profession to the well-known facts illustrating the chemic composition, the physiologic action and therapeutic value of the sulphites and hyposulphites. I would most respectfully urge upon the attention of the medical societies scattered over this great republic, the following subjects for careful examination and record:

1. Diphtheria, its systematic treatment with the sulphite of sodium, internally and also externally. It has been said by some that if the sulphite of sodium, in a recent case of diphtheria, be given in doses of 20 grains dissolved in a wineglass of water, every two hours, for a period covering several days, the disease will be arrested. Let the truth or falsity of this statement be determined by actual experiment. Let, then, the sulphite of sodium be systematically used, both locally and generally, in the treatment of diphtheria.

2. It has been affirmed that the hyposulphite of sodium given internally in regular doses, even in the presence of the poison in a yellow fever epidemic, will completely ward off this disease. I have no facts with which to prove this statement, but would advise that it be put to the test, as might easily have been done, as I suggested, in the recent epidemic at Brunswick, Ga.

3. Similar assertions as to the prophylactic powers of sulphite of sodium have been made in regard to scarlet fever, measles and typhoid fever. With reference to all these bold and highly important assertions, we have not a single recorded or well authenticated observation, and hence I would urge upon the American medical profession the importance of investigation.

156 Washington Ave., New Orleans, La.

## A CASE OF REMOVAL OF UTERINE MYOFIBROMA BY ENUCLEATION AND DRAINAGE THROUGH THE CAVUM UTERI.

BY J. H. ETHERIDGE, A.M., M.D.
CHICAGO.

The following report of a case of utero-myomectomy illustrates a means of avoiding the sacrifice of the Fallopian tubes, ovaries and uterus. The usual operations for removing uterine fibroids by hysterectomy or by tying off the broad ligaments are only too often necessary. Where these growths can be safely removed without sacrificing the organs that give to women her sex characteristics, no arguments can obtain to the contrary. The dangers from enucleation arise from imperfect drainage. The large cavity left in the uterine wall after turning out a myofibroma becomes a source of septic peritoneal infection unless the freest drainage be effected.

In performing a laparo-hysterotomy for fibroids, only selected cases can be taken. The steps of this operation consist of enucleation of the growth and securing drainage down through the uterus and vagina. The operation is wholly extra-peritoneal, the incision through the capsule being permanently closed. The two essentials to success are free drainage and complete hemostasis. In rare cases the sac can be sewed to the abdominal incision and drainage in this manner secured through packing it with iodoform gauze firmly enough to stop hemorrhage. By thus effectually closing off the peritoneum all danger of infecting this organ is averted.

To the distinguished surgeon, Dr. Senn, is due the credit of first describing the operation of laparo-hysterotomy with drainage through the uterine cavity for selected cases of uterine myofibroma. This procedure should hereafter be known as "Senn's operation."

The patient, age 47 years, had ceased menstruating two years previously. She had borne four children, the youngest of whom was 12 years old. Two years before the last confinement she began to have post pubic pains with much vesical irritability. These symptoms she continued to have till her operation. Between her third and fourth confinement she had had two miscarriages with great loss of blood, doubtless due to the beginning growth of her uterine tumor. After her last confinement she also experienced an enormous uterine hemorrhage. Ten years later—two years before her operation—she passed through the menopause somewhat abruptly. A year later there began a series of hemorrhages that eventually brought her to the Presbyterian Hospital in Chicago, in an anemic condition that threatened to extinguish her life.

Examination revealed a large myofibroma, freely movable, extending to the umbilicus. It was smoothly rounded and as uniform as a pregnant uterus in its contour. The cervix uteri was crowded firmly against the symphysis pubis, and the uterine cavity was four inches deep, the sound passing up directly behind the bladder. The tumor had developed wholly in the posterior wall. The usual preparations were made for an abdominal hysterectomy.

On May 25, 1892, the operation was performed. The usual median line incision was made. As soon as the nature of the tumor was determined the incision was lengthened to seven inches, the mass, free from adhesions, was eventrated, and the intestines were held back by a broad gauze compress. The fact that the mass sprang from the posterior wall of the uterus at once became evident. The entire uterus was outlined on the anterior surface of the mass with singular and striking clearness. After the elastic ligature was securely tied about the lower part of the growth an incision in the median line, five inches long, was made from before backwards across the top of the capsule. The entire growth was enucleated with astonishing ease without opening the cavum uteri. The cavity extended down to the Douglas cul-de-sac, and about six inches below the lower angle of the incision. Hemorrhage was entirely absent, apart from the escape of the residual blood of the capsule and the uterus. The lower two-thirds of the collapsed capsule was brought into strong coaptation with large catgut. An incision was then made into the uterine cavity with a scalpel, from just above the internal os to the fundus uteri, in the median line of the posterior wall. One end of a long piece of iodoform gauze four inches wide was then carried down into the vagina with a dressing forceps, and the remainder of it was crowded into the collapsed capsule. It was placed like the pleats of an accordion in order that its removal could be accomplished without unnecessary disturbance.

Afterward the incision in the capsule was closed over the packing as tightly as large catgut could draw it. The edges of the incision which were half an inch thick were closed with three rows of sutures, the inner one, heavy catgut, the second of the smaller catgut, and the third of silk. The greatest care was exercised in placing the second row of stitches, the object being to bring in contact a layer of the peritoneal surfaces about one-third of an inch wide on either side of the wound. For this purpose a cutting needle was avoided. An ordinary sewing needle was used. Seven interrupted stitches were placed, two to the inch, the incision having contracted about an inch and a half. The needle was inserted nearly half an inch from the edge of the wound and emerged a line or two from the free border. It was made to include the peritoneum and considerable of the substance of the capsule tissue to prevent tearing out. Upon the opposite side of the wound a similar method of introducing the suture was used. After this second row of closing sutures was tied, a third row of intermediate sutures of fine silk, cut short, was introduced. Thus was effectually secured a coaptation of the serous surfaces over the incision in the capsule, and the entire cavity of the peritoneum was shut off.

The time had now arrived for testing the efficacy of the hemostasis. The elastic ligature was removed, and at once arterial blood oozed freely from between the stitches. Recognizing the fact that the blood supply must come from below, three heavy, double, saddler's stitches of large catgut were introduced through the capsule from side to side, extending from before backwards. The first was placed well into the substance of the cervix, the second one-half an inch posterior to that, and the third still farther posterior to the second. They were tied as tightly as they could be drawn. Afterward, no further hemorrhage appearing, the abdominal incision was closed with interrupted silk sutures, and the patient was put to bed in good condition. The amount of hemorrhage could not have exceeded three ounces. Time of the operation, thirty-five minutes.

For two days afterward there was free drainage of blood and serum. The first night the patient slept two hours soundly. On the fifth day the gauze was easily removed. From that time the progress of the patient was entirely satisfactory, and she left the Hospital on the thirty-fifth day, and has remained well ever since.

The condition of a patient, before the menopause, undergoing this operation of laparo-hysterotomy—or Senn's operation—compared with what it would be after an abdominal hysterectomy, with its abruptly induced menopause and nerve storms, so graphically described by Professor Goodell in a recent lecture, can but be impressed upon the mind of the gynecologist.

Blank Applications for membership in the ASSOCIATION at the JOURNAL office.

## BRIGHT'S DISEASE.

Read before the Pennsylvania State Medical Society, 1893.

BY JOHN M. BATTEN, M.D.

PITTSBURG, PA.

J. McK., age 40, a molder, while putting up an iron fence, Nov. 16, 1885, sat on the cold damp ground; the following evening was taken with chills, fever and backache. In a few days afterward I was called in and found him with general anasarca and urine almost suppressed. Upon examination of the urine I found it highly albuminous and his bowels constipated. I ordered him to take a very hot bath, wet cups to back and compound jalap powder in 30 grain doses, three times a day. With this treatment, continued to suit the varied conditions of the case, the patient recovered in about two weeks.

F. S., age 6, a male. In June 1886, suffered with an intractable albuminuria and hematuria, following a mild attack of scarlet fever which came near ending my little patient's life. The anasarca had extended all over the body, so that he looked more like an alabaster statue than a human being. This condition had developed, notwithstanding I had almost exhausted all remedies, internal and external, within my therapeutic knowledge till I had about lost all hope of my little patient's recovery. In this dilemma I put him on small doses of muriate of pilocarpine gr. 1-12, three times a day, when the anasarca and hematuria soon began rapidly to subside and he recovered.

R. S. E., a painter, a male, age 21, came into my office on Sunday, Jan. 10, 1891, complaining of dizziness and imperfection in vision, accompanied with great pain in the back, loss of appetite and bowels constipated. He stated that he had been at an oculist's in the month of May last, and the oculist had ordered him to wear glasses. On this examination I could not make a satisfactory diagnosis. I ordered him home and to bed and to take a dose of compound jalap powder. On the following day I examined his urine which revealed albumen in it. I prescribed iodid of potash, a number of wet cups to back, and milk diet. On Jan. 19, 1891, the highly albuminous urine became very bloody with great pain in region of right kidney. So great was the pain that I suspected calculus in this kidney. I ordered wet cups applied over loins and ergot combined with the iodid of potash. On Feb. 7, 1892, the blood and albumen in the urine disappeared, sight became normal and patient recovered.

This patient no doubt had had albuminuria since May when he was fitted for glasses. He gave no cause other than his business for his sickness.

In albuminuria with anasarca following scarlet fever, I have found the following medication successful in many cases:

℞ Submuriatic hydrargyri . . . . . gr. iv.
Pulv. jalapæ. . . . . gr. vi.
Antimonii et potassii tartras . . . . . gr. ¼.

M. ft. pulv. in chart. dividendi T (1) Sig. To be given to a child 5 years old. After the bowels have been moved freely put the patient on

℞ Potassii nitrates . . . . . ℥i.
Tinc. digitalis . . . . . ℥ij.
Aquæ . . . . . ℥vi.

M. Sig. A tablespoonful carefully given every six hours.

The frequency and size of the dose may vary according to age and condition of the patient. A hot bath may be given daily to encourage diaphoresis. The patient should be kept in bed.

M. B., a boy 5 years old; anasarca, convulsions and albuminuria following scarlet fever. Patient very sick. I followed the above line of medication and he recovered.

I have found that the tincture of the chlorid of iron given in suitable doses, together with fresh sweet cider *ad libitum* in the convalescence of scarlet fever to be very useful remedies in preventing albuminuria. Patients should not leave the bed too soon after an attack of scarlet fever.

On Friday, Oct. 24, 1890, R. S., age 11 years, female, came into my office with the assistance of her mother after having convalesced from a severe attack of typhoid fever. Her gait was shuffling with right shoulder depressed; she complained of backache, colicky pains in bowels, loss of appetite and inability to walk erect. I ordered her home to bed,

dry cups to back, and hot poultices to bowels. The following day I found albumen in her urine. I ordered her nitro-glycerin internally, milk diet, dry cups repeated to the back and hot poultices continued to the bowels. Under this treatment she did not improve. Nov. 1, 1890, I substituted iodid of potash in 5 grain doses for the nitro-glycerin, and Nov. 21, 1890, the urine became normal, the shoulder resumed its wonted position, the shuffling and uncertain gait disappeared, the appetite improved and patient recovered.

The cause of this girl's sickness was obscure because of the difficulty of determining as to whether the disease of the kidneys might not have been secondary to a disease of the spine, which I at first suspected. I finally concluded and correctly, too, that the drooping right shoulder and shuffling gait was secondary to the disease of the kidneys.

In 1872, I examined and prescribed for a case of chronic albuminuria and anasarca in a man, age 50 years; addicted to alcoholism. I remember that my prognosis of the case at first was not very encouraging, but to my utter surprise and entire satisfaction the patient recovered. My treatment at first was compound jalap powder in suitable doses two or three times a day, till the anasarca was relieved, when I put him on 10 grains of iodid of potash three times a day till he recovered. The rapidity with which he recovered under a specific treatment would point to a syphilitic taint which I have no doubt he had.

On Friday, March 24, 1893, I was called to see P. D., age 37, a saloonkeeper; intemperate; occasionally got intoxicated and would remain so for a week; high liver. When I saw him he had been sick for about a month under the care of a doctor, but continued to get worse till the urine was almost suppressed and highly albuminous, and there were anemia, ascites, general anasarca of the body, constipation, orthopnea, great tension of heart's action, and cough. I ordered patient to take a hot bath, go to bed and then commence to take 3 grains of compound jalap powder every eight hours. I continued the hot baths once every day and compound jalap powder as directed for about a week, till ascites and anasarca disappeared. Then I put him on a tablespoonful of Basham's mixture of iron with 5 drops of tinc. digitalis every eight hours, 1 drop of nitro-glycerin in 9 drops of absolute rectified spirits of wine every eight hours alternating with the Basham's mixture, and dry cups to back three times a week; the bowels to be kept open once or twice a day with the compound jalap powder, and the patient to be kept on milk diet. The albumen did not diminish in his urine as rapidly as I had hoped it would do, and I suspected my patient might have had syphilis, although he positively denied ever having had that disease. However, on April 17, in addition to the other treatment, I put him on 10 grains of iodid of potash every eight hours which iodinized him. After he had suffered with intense headache, swollen face and eyelids, scanty urine and hoarseness for three days, and after he had taken a drachm and a half of iodid of potash, I suspended all medication for twenty-four hours and wet cupped my patient over the loins. At the end of this period I resumed the Basham's mixture, tinc. digitalis and nitro-glycerin. The urine commenced to flow and my patient became more comfortable. Sunday, April 23, the urine, for the first time since I saw patient, is free of albumen and he passes about three pints of that fluid daily; his appetite is good, tongue clean, and says he feels well. The specific gravity of the urine is 1000. The bowels move once or twice a day by taking a wine-glassful of Vichy water three times a day.

The following day the patient was up and about his room and passed three pints of urine with 10 per cent. of albumen in it. He continued to be up and about his room and to pass the same amount of urine daily but the albumen in it ranged at different times from 10 to 20 per cent. till May 12, 1893, when it became clear, straw-colored, and free of albumen. Specific gravity, 1010. The same treatment has been continued. I think now my patient has fully recovered, and he will be allowed to go out during favorable weather. The same diet will be continued for some time.

I wish to emphasize what appears to me to be a fact, that is, that there are certain pathologic conditions in chronic albuminuria which should not be overlooked in making a prognosis of the case. It is a well-known fact that a part of one kidney or a part of both kidneys may be diseased, while the healthy parts of one or both kidneys may perform the necessary functions of those organs. Again, only one kidney may be affected, while the healthy kidney will perform the function necessary for both. In the examination of the urine of such cases, albumen and casts may be presented and the physician learning these facts by testing the urine will be apt to give an unfavorable prognosis. In the case where only a part of one kidney or a part of both kidneys are diseased, the prognosis would be favorable, according to the extent of the kidney or kidneys involved.

We should carefully inform ourselves as to what may have been the cause of the kidney disease; whether acquired or hereditary? If acquired, the causes of the disease should be searched after and if possible eliminated. If he has been a gormand his diet should be prescribed. If sedentary in his habits he should take more exercise. If intemperate in alcoholic beverages he should abstain from drinking them. If he is syphilitic, specific treatment should be inaugurated. When the cause is hereditary there are many irregularities in the constitution that are worthy of study and thought, and there are many conditions arising in the course of the disease that may be ameliorated by hygiene, diet, climate and drugs.

Nitrite of amyl and nitro-glycerin relax and dilate the whole arterial and capillary system. Iodid of potash makes the heart's action more regular. Digitalis increases the force of the heart's action, but at the same time contracts the arterioles. Aconite and veratrum viride make the heart's action slower and more feeble. Convallaria makes the heart's action slower and stronger. Hydrate of chloral dilates the arterioles. The volume of blood can be diminished by blood letting and by eliminating the plasma of the blood indirectly by sweating, purging and diuresis. Now, no doubt we can give relief to a patient suffering with Bright's disease by judiciously prescribing the above remedies, suitable to the varied conditions which may arise in the course of the disease.

If, upon examination of the urine, we find albumen, we may give nitro-glycerin. If there has been a previous history of syphilis, iodid of potash should be prescribed in large doses three times a day well diluted in water, or mercury may be given in small and repeated doses, or the iodid of potash and mercury may be given combined. If the bowels are constipated, we may give the compound jalap powder in suitable doses to keep them sufficiently open and soluble to accomplish what may be indicated in the case. If dropsy and anasarca have made their appearance accompanied with pain in the back, we should put our patient to bed, apply wet cups to back, order a hot bath taken every day by the patient and give nitro-glycerin, iodid of potash, or compound jalap powder as may be indicated by the condition of patient. If there are indigestion and nausea of the stomach we should direct our remedies to that organ by giving vegetable bitters, diluted muriatic acid, diluted sulphuric acid or alkalies.

If there is irregularity in the heart's action, we should direct our remedies to that organ; if irregular, iodid of potash with small doses of opium. If the heart's action is increased and strong, aconite or veratrum viride may be given. If weak, digitalis. If the volume of the blood is too great, we should

give cathartics, diuretics and diaphoretics. In the earlier stages of dyspnea, iodid of potash in 5 grain doses, combined with small doses of opium may effect a relief. In severe attacks of dyspnea, dry cups to the chest and the inhalation of oxygen may be beneficial. In the worst cases of dyspnea it may be justifiable to keep the patient under the influence of an anesthetic. If there are convulsions, opium may be resorted to. The old doctrine that opium is a very dangerous remedy in Bright's disease of the kidneys is true, yet it is equally true that it is a very useful remedy. If the patient is anemic we should give large doses of tincture of the chlorid of iron and oxygen. In certain conditions sometimes one of the natural mineral waters, such as Carlsbad water, may be given.

In the later development of the disease we have restlessness, sleeplessness, headache, twitching of the muscles of the face, nausea, vomiting, delirium, convulsions and coma. To relieve these varied conditions we may resort to opium, hydrate of chloral, nitrite of amyl, convallaria, digitalis, caffein, blood letting, sweating and cathartics.

The diet in the management of a case of Bright's disease of the kidneys is a very important feature. It would seem, as nitrogenous ingesta in great part undergo metamorphoses and yield their nitrogen to be carried off in combination with a portion of other elements under the form of urinary products, that a non-nitrogenous diet or one approximating it, is the proper food in this disease, notwithstanding. Dr. Ephraim Cutter asserts that he has seen a full-fledged case of Bright's disease of the kidneys restored to health by absolute beef diet in six or more months.

## THE WATERS OF THE GLEN SPRINGS, WATKINS GLEN, NEW YORK.

WITH COMPARATIVE TABLE BY J. K. KING, M.D.

Read in the Section on Materia Medica and Pharmacy, at the Forty-fourth Annual Meeting of the American Medical Association.

BY F. E. STEWART, M.D., PH.G.

WATKINS, N. Y.

It has long been our habit as physicians to send our patients to the healing waters of Europe for health and recreation. When it is considered that there are nearly a thousand mineral springs in the United States of America, many of them fully equal to any that may be found abroad, this fact seems anomalous. One feels like saying with Naaman, the Syrian, "Are not Abana and Pharphar, rivers of Damascus, better than all the waters of Israel? May I not wash in them and be clean?" While it is true that the Spas of Europe, being older, are, as a rule, better equipped with establishments where the waters may be used under the direction of physicians specially trained in their administration, there are similar places in the United States, and I believe in developing the resources of our own country. Advantages may be given to our patients in America similar to those found in Europe at a figure within the means of the ordinary American citizen. But we must study the subjects of balneology, climatology, hydrotherapy, etc., that we may send our patients to American Spas where the correct principles of treatment are carefully carried out.

Dr. Titus Munson Coan of New York city, who has made the subject of the mineral springs of the United States a special study, says in his paper on "American Mineral Waters with some remarks on American Climates," read before the Ninth International Medical Congress: "There are about six hundred mineral springs in the United States now utilized as places of resort. At few of these, indeed, are there fine hotels; at fewer still are there regular establishments. But the constant process of natural selection, swifter among us than elsewhere, will cause rapid progress in all that relates to balneology among us. Of all the communities of the world, that of the United States is the one for which the restful influences of spring treatment are indicated."

And how are we to realize this development of American Mineral Spas, except through the efforts of the medical profession? Institutions should be established at the mineral springs in convenient parts of the country from Maine to Florida, and from the Atlantic to the Pacific. Such establishments should be put in charge of competent physicians for their development. But they can never reach the high standing desirable until the medical profession, as a whole, educates itself to know and demand the higher class of facilities.

Quoting again from Dr. Coan's paper: "And what data have we for the survey of this vast territory from the balneographic point of view? We have the various surveys, whether made by States or by the general Government. A considerable number of monographs by different geologists and physicians and medical societies, notably the AMERICAN MEDICAL ASSOCIATION, and a lesser number of general treatises. We have, as yet, little to show that will compare with the learned works of Trousseau, Durard-Fardel, Braun, Hellft-Thilenius, Rotureau and Leitchtenstein. Dr. Walton has produced an excellent manual, one that may be called a pioneer work in this direction, though it is necessarily incomplete from the lack of sufficient data. These, however, are now being developed on every hand, and particularly by the United States Geological Survey, to whose publications the student of American mineral waters is under great obligations, and especially to Dr. Albert C. Peale's recent monograph, 'Lists and Analyses of the Mineral Springs of the United States,' published as Bulletin 32 of the Geological Survey, a work which must be consulted for the fullest data yet available in the matter of analyses, of which 859 are given."

In the light of such facts as these, no apology is necessary for bringing to your notice the waters of several mineral springs in central New York, near Watkins Glen, which hitherto have not been mentioned in literature.

The existence of a mineral spring on the hillside near Watkins Glen, New York, has long been known to the residents of the town, who have for many years ascribed to it marvelous healing powers. The spring is on the site of an ancient "deer lick," and was known to the Seneca Indians, who had erected a log curbing around it, the remains of which were found during subsequent excavations. The waters closely resemble those of the European Spas, Kreugnach, Hall, Duerkheim and Krankenheit. Professor Chandler's analysis of this spring shows it to contain chlorid of sodium and of potassium, the bromid and iodid of sodium, the bicarbonates of ammonium, iron, calcium and magnesium, with traces of other mineral salts, among them bicarbonate of lithium.

| INGREDIENTS. | Glen Springs Deer-lick. | Glen Springs Neptune. | Saratoga Vichy. | | Glen Springs Vulcan. | Kissingen Racoczi. | Krankenheit Johan Georgequelle. | Durckheim Virgiline, Brunnen. |
|---|---|---|---|---|---|---|---|---|
| Chlorid of Sodium | 114.7561 | 400.444 | 128.689 | 32.80 | 149.06 | 357.68 | 14.192 | 631.336 |
| " Potassium | 0.2309 | 8.045 | 14.113 | | | 17.60 | | 5.424 |
| " Magnesium | | | | | | 18.64 | | 30.064 |
| " Calcium | | | | | | | | 110.592 |
| Bromid of Sodium | .5962 | 8.359 | 0.990 | | | .48 | | 1.544 |
| " Magnesium | | | | | | | | |
| Iodid of Sodium | 0.0362 | 0.138 | Trace | | | Traces | .096 | .152 |
| Sulphate of Lime | | | | | | 23.92 | | 1.344 |
| " Soda | | | | 18.32 | | | .760 | |
| " Potash | | 0.889 | Trace | Trace | | | .752 | |
| " Magnesia | | | | | | 36.00 | | |
| Bicarbonate of Soda | | 10.775 | 82.873 | 312.72 | | Carbonate | 19.864 | |
| " Lime | 41.7667 | 143.399 | 95.522 | 26.16 | 29.80 | 65.12 | 5.624 | 14.816 |
| " Magnesia | 19.2804 | 121.757 | 41.503 | 20.72 | 11.37 | | 1.832 | .472 |
| " Iron | 1.7257 | | 0.052 | 0.24 | 1.87 | 1.92 | .008 | .752 |
| " Ammonia | 1.0841 | | | | | | | |
| " Potash | | | | 22.72 | | | | |
| " Strontia | | Trace | Trace | 0.16 | | | | |
| " Manganese | | | | Traces | | | .008 | .032 |
| Phosphate of Soda | Trace | 0.016 | Trace | 4.24 | | | | .048 |
| Silica | 0.6415 | | .758 | 0.40 | Trace | .72 | .552 | .648 |
| | | | | | | Chloride | | Chloride |
| Alumina | Trace | | .473 | | Trace | 1.20 | | .312 |
| Bicarbonate of Lithia | | 4.761 | 1.760 | | | | | |
| Phosphate of Lime | | | | | | | | |
| " Alumina | | | | | | | .168 | |
| Aluminum | | | | | | | | .008 |
| Nitrogen | | | | | | | | |
| Carbonic Acid Gas | | | | | | 47.77 C. T. | | |
| Temperature | 51° | | | | | | | |
| Specific Gravity | | | | | | | | |

For a statement of the percentage composition, see the comparative table kindly furnished by my friend, Dr. J. K. King, appended to this paper. The waters of the Deer-lick Spring are clear and limpid, without odor, and with a slightly astringent, mildly saline taste.

Several years ago certain parties were boring in the hillside not far from the Deer-lick Spring, and hoping to discover natural gas. Seventeen hundred feet below the surface the tool struck a layer of strong brine. This brine was found to contain upon analysis a large proportion of calcium chlorid, thus unfitting it for the manufacture of salt for commercial purposes, and the well yielding neither gas nor brine fit for manufacturing purposes, was abandoned. The waters, however, resemble the celebrated brines of Kreugnach, Rheims and Nauheim, and are now being used for medical purposes.

According to Professor S. A. Lattimore of the University of Rochester, this brine, which has a specific gravity of 1133, each gallon yielding 1.62 pounds of salt, contains per gallon 3,499.08 grains of calcium chlorid, 6,368.33 grains of sodium chlorid, and 635.67 grains of magnesium chlorid, with traces of the iodid and bromid of sodium, iron and alumina. He says it differs from all brines that he has hitherto analyzed, and from nearly all those whose composition has been reported, on account of the total absence of calcium sulphite (gypsum) which is almost invariably present in brine everywhere. No other sulphates are present in this brine, and he says: "The very large percentage of lime (calcium) in the form of chlorid is equally exceptional in my experience." The name, Neptune, has been given to this spring.

Two other mineral waters were struck by the drill in the same locality last summer. One of them is a delightful table water, and has been named Salubria, to perpetuate the ancient name of Watkins, which it bore before Dr. Watkins purchased the real estate in the neighborhood and gave the town its present name. The other spring contains iron, and has received the name, Vulcan.

Salubria water contains in each sixteen fluid ounces 196.28 grains sodium chlorid, 19.68 grains calcium carbonate, .05 grains magnesium carbonate. It is therefore a saline calcic water. In composition it resembles in some respects the waters of Vichy, Tachingen and Bilin, but is more closely related to the waters of Kissingen, Homburg, Wies-Baden, Baden-Baden, Mondorf, Constatt and Sodan. It also resembles the waters of Saratoga. The taste of the water is quite similar to Kissingen. When artificially charged and bottled in the same manner as similar waters elsewhere, it compares favorably with those now on the market.

Professor Lattimore's analysis shows the Vulcan Spring to contain in each sixteen fluid ounces calcium carbonate 29.80, magnesium carbonate 11.37, iron carbonate 1.87, sodium chlorid 149.05. The water also contains much carbonic acid gas. By consulting the comparative table it will be observed that this water stands midway between the Pandur and Maxbrunner waters of Kissingen in regard to the amount of chlorid of calcium present; that in regard to the amount of iron the Kissingen, Ragoczi, contains in each sixteen fluid ounces, 1.92 grains; the Pandur 1.62, while the Maxbrunner contains no iron at all. It is evident, therefore, that the Vulcan water possesses the great advantage of being more mildly saline than either of the waters of Kissingen containing iron.

The site of these springs is a beautiful spot on the shores of Seneca Lake, west of the village of Watkins, and about ten minutes walk from the famous Watkins Glen. The altitude of the spot is about three hundred feet above the surface of the lake, and seven hundred and thirty feet above sea level. The hotels in the village are good, and well patronized in the summer time. The Sanitarium situated near the springs was established by representative physicians from similar institutions at Clifton Springs and Dansville, and is an assured success as a sanitarium doing scientific work, and an attractive summer resting place, with bathing facilities, massage, electric treatments, etc.

| Manheim Acidulous Alkaline. | Rehme Bülow Brunnen. | Carlsbad Sprudel. | Schnalbach Winbrunnen. | Arkansas Hot Springs. | Hesse Apollinaris. | Bethesda Waukesha. | Glen Springs Neptune. | Nauheim Salzbrunnen. | Austria Hall Hauptquelle. | Mount Clemens. | Kreugnach Brine. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.780 | 1445.04 | 69.7960 | 0.528 | 0.216 | 28.56 | 1.160 | 6368.33 | 1134.488 | 896.32 | 11900.00 | 10495.12 |
| Traces | . . . . | . . . . | . . . . | 0.040 | . . . . | . . . . | . . . . | 43.832 | 0.39 | . . . . | 28.00 |
| 6.184 | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 635.67 | 16.816 | 20.97 | 648.48 | 585.72 |
| 1.288 | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 3499.08 | 85.712 | 23.46 | 934.50 | 1928.00 |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | Trace | . . . . | . . . . | . . . . | . . . . |
| Traces | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 3.200 | 4.08 | 6.37 | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | Trace | . . . . | 0.48 | . . . . | . . . . |
| .824 | . . . . | . . . . | . . . . | 0.362 | . . . . | . . . . | . . . . | 6.200 | . . . . | 100.55 | . . . . |
| . . . . | 129.52 | 159.6848 | 0.404 | . . . . | 18.40 | 0.542 | . . . . | . . . . | . . . . | . . . . | . . . . |
| . . . . | . . . . | 2.9568 | 0.448 | . . . . | . . . . | 0.454 | . . . . | . . . . | . . . . | . . . . | . . . . |
| . . . . | Carbonate | Carbonate | . . . . | . . . . | Carbonate | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| 30.104 | 59.12 | 72.4982 | 15.072 | . . . . | 77.20 | 1.256 | . . . . | . . . . | . . . . | Carbonate | . . . . |
| . . . . | Carbonate | Carbonate | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 0.98 | . . . . |
| 20.048 | 52.00 | 16.1584 | 35.152 | 1.160 | 3.60 | 17.022 | . . . . | 95.232 | 8.84 | Carbonate | . . . . |
| . . . . | Carbonate | Carbonate | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | Carbonate | 0.70 | . . . . |
| . . . . | 39.44 | 3.1922 | 35.736 | 2.400 | 27.12 | 12.388 | . . . . | . . . . | 1.92 | Carbonate | . . . . |
| . . . . | . . . . | Carbonate | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 5.60 | . . . . |
| .608 | .40 | 0.2456 | 3.544 | . . . . | 1.20 | 0.042 | Trace | 1.592 | 0.64 | 2.24 | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | Iodid of Mag. | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 0.24 | 0.07 | . . . . |
| . . . . | . . . . | . . . . | . . . . | Oxid.Lime | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| . . . . | . . . . | . . . . | 0.560 | 0.328 | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| Traces | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| . . . . | . . . . | . . . . | Trace | . . . . | . . . . | Trace | . . . . | . . . . | . . . . | . . . . | . . . . |
| .552 | .08 | 8.4160 | 2.856 | 1.400 | 0.48 | 0.944 | . . . . | . . . . | 0.56 | 27.60 | . . . . |
| . . . . | . . . . | 1.7200 | . . . . | . . . . | . . . . | 0.122 | Trace | . . . . | . . . . | 29.47 | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 0.16 | . . . . | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| .304 | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . |
| 54.208 | . . . . | 62.4264 | . . . . | . . . . | . . . . | . . . . | . . . . | 138.856 | . . . . | . . . . | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 50° | . . . . | . . . . | . . . . | . . . . |
| . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | . . . . | 11.33° | . . . . | . . . . | . . . . | . . . . |

*Therapy:*—The medicinal value of these waters is the same as that of similar waters in other parts of the world. The water of the Deer-lick Spring, therefore, is tonic and alterative, diuretic and mildly aperient. The use of waters of this class results in an improvement of the appetite and digestive processes. Tissue metabolism is promoted, and the red globules of the blood increased. This being the physiologic effect of their administration they are recommended by all authorities in the treatment of anemia, chlorosis, hysteria, neurasthenia, chronic diseases of the kidneys, glycosuria and diabetes, and in various diseases peculiar to women, such as chronic endometritis, dysmenorrhea, amenorrhea, etc.

Like the waters of the celebrated Spas of Kissingen, Homburg, Wies-Baden, etc., which it resembles in many respects, the water of the Salubria Spring is a stimulant to the mucous surfaces generally, especially to that of the stomach and bowels. This class of waters, according to the leading authorities, when taken into the stomach dissolves the mucus, and by increasing the secretion of gastric juice and bile, promote the absorption of food. This effect is probably enhanced by the well-known property of sodium chlorid upon osmosis. In large doses these waters are purgative. They aid tissue building by increasing both constructive and destructive metamorphosis. They are used extensively in Europe in the treatment of catarrhal processes, especially of the stomach and bowels, also in chronic inflammation of the pharynx, stomach, duodenum and bile ducts, in constipation, in congestive affections of the abdominal and pelvic organs, chronic endometritis, hepatic and splenic congestion, chronic inflammatory diseases of the respiratory tract, obesity, scrofula, gout, rheumatism and neuralgia. Salubria is eminently a table water, and when put up in bottles, it rivals Apollinaris.

The Vulcan water of the Glen Springs, as already pointed out, belongs to the same class of mineral waters as those of the Kissingen Spa. Like the Kissingen, it is somewhat alterative, diuretic, tonic, and mildly aperient. In gout this class of waters prove useful by exciting the secretion of the intestines, kidneys and the skin thereby reducing the habitual plethora, eliminating the gouty poison, and promoting a healthy tissue metabolism. They have been highly recommended in scrofula (though the ioda-bromated waters such as the Deer-lick are preferable), in chronic catarrh of the stomach, abuse of alcoholic stimulants, deficient secretion of gastric juice, congested liver from sedentary habits, calculus and catarrh of the bladder, and externally in various swellings of the glandular organs.

For external use, however, the Neptune brine is preferable, Like the chlorid of calcium brine of Kreugnach, so celebrated for its healing virtues, this water has a place in the treatment of a certain class of diseases. The baths given at the European Spas of Kreugnach, Rheims and Nauheim are of various kinds, and known respectively as ordinary baths, wave baths, froth baths, graduated brine baths, and baths with the addition of mother lye. The latter has great popularity. By comparing the analysis of the Neptune water with that of the graduated brines of the European Spas, it will be found that the American water does not require concentration to make it fully equal to the best of them.

Brines are graduated at the European Spas by letting the water run down great scaffoldings of thorns whereby it is concentrated by evaporating from the extensive surfaces thus exposed to the air. When the evaporation has been repeated several times, and the brines are concentrated to such a degree that they contain from 140 to 180 grains of salines to the pint, they are in many places boiled, in order that those salines which are not easily soluble, such as chlorid of calcium, silica, carbonate of lime, carbonate of magnesia, alumina, iron and manganese may be precipitated, and removed from the liquid. That which remains after several weeks boiling is called "Mother Lye." This is half salt and half water, containing from 2,000 to 4,000 grains of salines to

the pint. Its chief solid constituents are chlorid of calcium, magnesium and potassium, and bromid and iodid of sodium and magnesium. The water of the Dead Sea will serve as an illustration of Mother Lye. There is no visible outlet to the great basin of saline water, and the waters, concentrated by evaporation in the sun, precipitate the more insoluble salines, and hold those which are more soluble in solution. The most celebrated mother lyes in Europe are those prepared at Kreugnach, Halle, Volterra and Durcheim. The quantity generally added to baths varies from two to thirty quarts. By a fourth concentration, crystallization ensues, and the hard substance finally remaining is known as "Mother Lye Salt." This contains a certain proportion of water, and is very hygroscopic, so that when exposed to the air, it soon becomes liquid again.

Arrangements have been made at Watkins for evaporating the Neptune brine for the purpose of preparing salt for giving what are known as salt-rubs. As will be seen, however, the water does not require concentration, but dilution, for use in bathing. Indeed, for some purposes, especially in treating uterine troubles by irrigation, great dilution is required at first, to be gradually employed in stronger solution if required.

## TREATMENT OF PIGMENTATIONS OF THE SKIN.

Read by title in the Section on Dermatology and Syphilography at the Forty-fourth Annual Meeting of the American Medical Association.

BY JOHN V. SHOEMAKER, A.M., M.D.
PHILADELPHIA, PA.

Every blemish upon the skin is the source of anxiety and mortification to its possessor. In addition to those lesions produced by inflammatory, hypertrophic and neoplastic processes, we meet with a number of affections in which the normal pigmentation is decidedly altered. A generalized or local discoloration is produced by various causes, some of which are constitutional while others are local in their action. In some cases we are able to improve the quality of the blood or remove the exciting cause and in this manner to restore the normal hue. In others the discoloration of the skin is one of the least important manifestations of the disease and depends upon conditions which are beyond the reach of remedial agents. We are constantly consulted by patients whose chief trouble would seem to be abnormality of pigmentation. It is necessary in each case to ascertain the origin of the difficulty before we can adopt a rational therapeusis or form a sagacious prognosis. The constitutional maladies attended by discoloration of the skin belong to the domain of general medicine and surgery. Even those, however, which we classify among diseases of the skin frequently depend upon the operation of some systemic cause. The integument is a faithful index of the healthy action of the organs and tissues of the body. In constitutional maladies the skin is blanched, discolored or subject to inflammatory processes.

*Chlorosis.*—This affection is characterized by a peculiar greenish or greenish-yellow tinge, indicative of the loss of hemoglobin. The number of red cells is not greatly diminished but the quantity of hemoglobin is disproportionately diminished. When viewed under the microscope the red cells are perceptibly paler than under normal conditions. The impoverishment of the circulating fluid, associated with imperfect ovarian function, accounts for the symptoms of the disease. The limits of space forbid any present discussion of its symptomatology and etiology.

The first indication of treatment is, therefore, to restore the wasted hemoglobin. This object is, in brief, accomplished by the administration of iron, with which arsenic may often be advantageously combined. As, however, chlorotics have weak stomachs, we are compelled to feel our way very cautiously in regard to medication. We should lay great stress upon the requirements of hygiene. The patients need fresh air, sunlight, gentle exercise, a nutritious but digestible diet and cheerful, or even gay surroundings. Their apartments should be well ventilated, windows should be kept open when weather and season permit; they should take short walks every day or carriage rides wherever practicable. Among the poor, in summer time, the open street cars furnish an inexpensive mode of procuring fresh air. Sunlight is of decided value in these cases, stimulating, as it does, both digestion and absorption. Sanguification proceeds favorably under the influence of light while its absence favors or perpetuates the loss of hemoglobin. The living rooms should, consequently, be sunny as well as airy. A change of climate is frequently the best initiative in the treatment of chlorosis. The mere change of surroundings, by rousing the attention and interesting the mind, is of decided assistance, for both the production and cure of chlorosis are decidedly influenced by mental conditions. In general terms, the best climate for chlorotics is one which allows the patient to spend the day in the open air, swinging in a hammock, taking a short walk or a ride—horseback or bicycle exercise if the strength is sufficient. According to the season of the year, we may select the seaside, the mountains, Florida or Southern California. Increased oxygenation is an important factor in the cure of chlorosis. Ventilation, exercise and a suitable climate promote oxygenation and thus aid in the generation of hemoglobin. One of the most valuable therapeutic measures is a sea voyage. Salt air provokes an appetite, improves digestion, stimulates the activity of the glandular follicles and viscera of the alimentary system, strengthens muscular tissue, invigorates the heart, improves circulation and respiration, communicates oxygen to the blood and promotes sanguification. The uncertain, fastidious and perverted appetite becomes normal, the discoloration gradually disappears, the lips and mucous membrane acquire a rosy hue, the skin becomes soft and acquires a healthy color, and by the time the voyage is ended the patient is restored to health or on the high road to sure and speedy recovery.

The direct inhalation of oxygen gas is beneficial in chlorosis. The use of ozonized water is another efficient method of introducing oxygen into the system. The practice of massage is likewise followed by improvement. This procedure operates favorably in several ways. It induces an increased absorption of oxygen, invigorates the general muscular system and the action of the heart, stimulates the circulation, strengthens the nervous system, excites secretion of the digestive fluids and, consequently, improves the appetite and digestion. Massage is likewise of value by exciting peristalsis and relieving the constipation

which generally attends chlorosis. Moreover, it exerts a favorable influence upon the womb and ovaries, and thereby regulates the menstrual function, which is so notably deteriorated in this disease. Music, by its effect upon the nervous system and circulation is also capable of doing good in chlorosis, and for this reason concerts or operas generally assist in improving the condition of the patient.

I have casually alluded to diet and have mentioned several important methods by which appetite and digestion are strengthened. As regards the nature of the food, it should contain as large a proportion of albuminous material as can be appropriated. It is necessary to be very circumspect in beginning the treatment. Oysters, plainly cooked, sweetbread, underdone beef with bread, with potatoes well boiled, mashed and covered with meat gravy, together with a little wine or ale, are generally tolerated. In extreme cases it is advisable to commence with the administration of prepared or predigested food. Kumyss is an excellent preparation in these cases. At once nutrient and stimulant it fulfills all the indications of a food. It is almost invariably well borne and, in fact, is usually effective in relieving gastric irritability. It stimulates the appetite and the action of the heart, deepens the respiratory movements, increases the proportion of hemoglobin in the blood. Kumyss now can be readily made from the kumyssgen powder. Another form of fermented milk which answers the same purpose is known as kefir. This preparation has a pleasant, acidulous taste, is acceptable to the stomach and has been used with advantage. It possesses less alcoholic strength than kumyss. Kefir, however, is less easily procured in this country.

In the medicinal treatment of chlorosis it is essential that the bowels should, from the beginning, be kept open, relieving the system of waste products which otherwise are re-absorbed and assist in the destruction of hemoglobin, perpetuating the morbid condition. Aloes or aloin, given in pill, combined with iron and with the addition, perhaps, of belladonna, strychnin, ipecacuanha and myrrh, as prescribed by Sir Andrew Clark, answers a good purpose. Instead of aloes, Hugh Woods makes use of the double sulphate of iron and magnesium in the dose of 10 grains three times a day. The old-fashioned ferro-saline mixture, consisting of sulphate of magnesia, cream of tartar and dried sulphate of iron, dissolved in water will efficiently fulfill the same indications, provided its styptic taste does not prove a bar to its use. Colocynth, also, in conjunction with iron, has been employed with advantage. Collinsonia canadensis, by improving appetite, digestion and elimination, is serviceable in chlorosis. Dr. Alexander claims to have secured improvement by the hypodermic injection of camphorated oil in the dose of 15 minims. Iron is the remedy *par excellence*. The form of its administration depends principally upon the tolerance of the stomach. Bland's pill is an excellent preparation and is generally well borne. When there is excessive gastric irritability we may make use of some of the more recently introduced preparations, such as the albuminate, solution of the malate or lævulose of iron. Again, chalybeate spring water may beneficially enter into the treatment. Another excellent method consists in the direct administration of hemoglobin. This substance, it has been shown, is well borne by irritable stomachs, does not excite dyspeptic symptoms and is rapidly absorbed. It increases the number of red corpuscles and restores their normal composition. Hemoglobin improves the appetite, promotes menstruation, increases body-weight and strength and favors the excretion of urea. Modified forms of hemoglobin have recently been produced by Prof. Kobert, and have been presented to us under the names of hemol and hemogallol. The hypodermic injection of salts of iron is also advocated as of especial value in severe cases. Given in this manner it is rapidly absorbed and rapidly efficient. It acts directly upon the entire blood-forming apparatus. A combination of arsenic will often enhance the efficacy of iron in the treatment of chlorosis.

Local therapy is of but little value in chlorosis. All that is necessary is scrupulous attention to the hygiene of the skin by means of warm baths.

*Chloasma.*—As chloasma usually appears upon the face of women its successful treatment is a matter of much interest. The patches exhibit great variety, both as regards size and color. The hue may be yellowish, yellowish-brown, dark brown or even black. Chloasma may depend upon local causes, such as scratching, pressure or friction, or it may be produced by systemic affections, as tuberculosis, cancer, malaria, uterine and ovarian affections. It may also develop in the course of scleroderma, morphea, etc. Chloasma uterineum may be due to pregnancy or to disturbances of the menstrual function. Chloasma may also be associated with grave anemia.

The treatment of chloasma embraces both constitutional and local measures. Internal medication must, of course, be dependent upon the cause of the affection. If the pigmentation is merely symptomatic of a wasting affection we are not justified in expecting a favorable result from our efforts. Our attention must be directed to maintaining the general condition and checking or retarding the progress of the constitutional malady. When the discoloration has been induced by uterine or ovarian disease, we must aim to correct the disorder upon which it depends. Chloasma as the result of pregnancy usually but not invariably disappears after delivery.

Local therapy should be governed by two principles. As the pigment is deposited in the rete mucosum the removal of the epiderm will be attended by the removal of the pigmented spots. At the same time, active irritants must be avoided, as their application favors pigmentation and whatever improvement they may effect by the destruction of the affected cuticle will be but temporary. I would for this reason discountenance the use of mustard, cantharides, mineral acids and croton oil. The cautious employment of strong acetic or carbolic acid may, however, be attended by success, each spot being touched by a pledget of cotton dipped in the agent chosen. Merck's concentrated lactic acid, diluted with three times its bulk of water, applied upon a glass rod, is recommended by some writers. An ointment or plaster containing 5 per cent. of salicylic acid has also been employed. Alkalies, in the form of soap, especially the green soap, may be effectual. A solution of borax in the tincture of green soap is a good remedy. Another method consists in painting the patches with tincture of iodin. The tincture of benzoin may be used with success. The veratrine ointment of the "Pharmacopœia" spread upon the patches, will sometimes cause disappear-

ance of the pigmentation. A method of treatment much in vogue is that by some form of mercurial, corrosive sublimate; white precipitate, nitrate of mercury and mercurial plaster are the preparations most frequently employed. Hebra was accustomed to dissolve 5 grains of corrosive sublimate in an ounce of distilled water, alcohol or collodion, apply it upon a compress for four hours, prick the resulting blister and dress the surface with powdered starch. Unna, after washing the surface with alcohol, recommends the application over night of a plaster containing ammoniated mercury, which is removed in the morning and succeeded by an ointment of which the subnitrate of bismuth is a principal ingredient. In every case, when too much irritation is produced by the agent used, an emollient application should be placed upon the surface. The ointment of nitrate of mercury, either of official strength or weakened, may be preferred. The sulphocarbolate of zinc, in the strength of about a drachm to a pint of water, glycerin and alcohol, has been advised. Some practitioners rely upon plasters containing sulphur, and the late Professor Hardy mentions with approval the use of sulphurous mineral waters in the form of douches. Dr. G. H. Fox gives a formula for 4 per cent. carbonate of potassium and 2 per cent. of chlorid of sodium dissolved in orange flower water. Dr. White recommends a 1 per cent. solution of chlorid of ammonium with 15 per cent. of cologne water. Some authors advise the use of oil of cade. Professor Leloir, after cleansing the surface with soft soap or alcohol, applies several layers of a 15 per cent. solution of chrysarobin in chloroform. After the liquid has dried he covers it with a coating of the solution of gutta percha.

My own preference is for remedies which, if more slow in action, are productive of less cutaneous irritation, an effect which, as I have already stated, it is desirable to avoid. The preparations upon which I generally rely are the ointments of mercuric or mercurous oleate or an ointment containing from 30 to 60 grains of copper oleate to the ounce of excipient. A good procedure, also, is to cover the pigmented patch with the solution of hydrogen peroxid, applied by means of a camel's hair brush. Finally, I can recommend the frequent application of the galvanic current as one of the most efficient and reliable agencies at our command.

*Jaundice.*—A sallow complexion is the result of functional activity of the liver. The digestive disturbances and the cutaneous discoloration are best relieved by an appropriate regulation of the diet, by active exercise and by occasional employment, when an emergency arises, of a purgative dose of calomel, or by the use of such remedies as nitro-muriatic acid, or ipecacuanha. When the bile is produced in sufficient abundance but its passage into the intestine is prevented, the fluid is reabsorbed and occasions the yellow discoloration with which we are all familiar. Under these circumstances our principal aim must be the removal of the obstruction. In many, perhaps in most cases, the occlusion is due to swelling of the mucous membrane or impediment by a plug of mucus or a gall-stone. In other instances the common duct is compressed by a tumor and the outflow of bile is thus arrested. As long as the tumor is present, the jaundice will endure. Many of these new growths are of malignant character and, therefore, our efforts are necessarily devoted to relieving, as far as possible, the symptoms to which they give rise. Hydatid tumors are amenable to operative interference and with the absence of pressure the jaundice will gradually vanish. Occasionally a colon enormously distended with impacted feces presses upon the common duct and causes jaundice. Here our indication is to unload the colon. If obstruction be due to the presence of a calculus in the ductus choledochus we must administer a purgative, such as resin of podophyllin or calomel in small and repeated doses and relieve the pain by hypodermic injection of morphin and atropin and the administration of ether and chloroform. The phosphate of sodium is of value when the concretion occupies the gall-bladder as it softens and breaks up the mass. Patients who exhibit a tendency to the formation of biliary calculi should be careful as regards diet, should consume alkalin mineral waters and take an abundance of exercise. In catarrhal jaundice if, as is frequently the case, the tongue is heavily coated, it is serviceable to begin the treatment with an emetic dose of ipecacuanha. If there is decided irritability of the stomach, broken doses of calomel are efficient. This procedure allays nausea and loosens the bowels but requires to be watched closely as it is liable to excite salivation. If constipation is present a full dose of calomel, alone or combined with sodium bicarbonate, a purgative dose of rhubarb, aloes or colocynth should be administered and repeated if required. Instead of these drugs, a saline mineral water may be ordered. In chronic cases sulphurous waters are beneficial. It is of importance to regulate the diet. The food should be simple and of easy digestion. Fat should be avoided and starches are not generally well borne. Skimmed milk, oysters raw or stewed, mutton or chicken broth, sweetbread and baked potatoes are sufficiently nutritious and will not strain the digestive organs. Undigested food within the alimentary tract aggravates the duodenal catarrh and prolongs the jaundice. The activity of the kidneys should be maintained. This can be accomplished by the use of the vegetable diuretics, the acetate or bitartrate of potassium, sweet spirits of niter, etc. Frerichs was fond of giving from 1½ to 3 ounces of lemon juice in the course of the day, finding it well borne and an efficient diuretic. The skin, also, must be kept active by means of baths. The vapor, the Turkish or Russian bath may be used with benefit. This practice alleviates the itching and diminishes the pigmentation. Water impregnated with soda accomplishes the same purpose. In some cases sulphur baths are preferable. Nitro-muriatic acid added to the bath has likewise been used with advantage. A Dover's powder at bedtime is serviceable on account of its action upon the skin. Pilocarpin, however, is much more efficient. Warm baths and diaphoretics favor elimination of toxic products. Massage, likewise, is of service in reducing the discoloration and allaying pruritus. Enteroclysis has proved a valuable device in the treatment of both catarrhal jaundice and that due to the obstruction of gall-stones. Enteroclysis is a method of introducing, by means of the fountain syringe, large quantities of water into the bowel, the fluid being carried, by an antiperistaltic motion, through the ileo-cecal valve into the small intestine. A simpler method of injection has been practiced by Krull, from two to four pints of water at the temperature of 60 degrees F., being thrown into the rectum and retained as long as pos-

sible. The procedure is repeated two or three times a day and is reported to be very efficient.

Certain drugs are of decided service in catarrhal jaundice by relieving inflammation of the mucous membrane, softening mucus plugs and permitting the free escape of bile. One of the best of these is the phosphate of sodium, which may be administered alone or in combination with the arseniate of sodium. The phosphate of calcium can also be recommended. The chlorid of ammonium yields good results. Small and repeated doses of the iodid of ammonium can be given with benefit. Nitro-muriatic acid is a good remedy in obstinate cases. It has a good influence upon the gastro-duodenal mucous membrane and facilitates the passage of bile. Chelidonium, taraxacum, triticum repens and carduus benedictus are of assistance in the treatment of jaundice. The oxid of manganese has been given with success in catarrhal or malarial jaundice. The bicarbonate of sodium, conjoined with rhubarb, is serviceable in the catarrhal form. The oxid or the nitrate of silver are recommended in the same condition. Oxgall is of utility. It may be administered alone or associated with the chlorid of ammonium. Narcotic remedies, such as morphin, belladonna, hyoscyamus or conium, are sometimes of service. If obstruction is due to a stone they relax spasmodic contraction of the duct and quell pain. They also probably aid in allaying inflammation of the mucous membrane. The passage of a calculus is facilitated by the use of massage and electricity.

*Malaria.*—The yellowish pallor observed in chronic malaria, or malarial cachexia, represents a waste of red blood cells and hemoglobin. Not infrequently, an actual jaundice occurs, from the presence of gastro-duodenal catarrh and the deleterious influence which miasm has exerted upon the liver. Local measures, further than the frequent use of warm baths, are of but little avail in this condition. The first step toward recovery should be, wherever practicable, removal to a country in which malaria is not prevalent. A sea-voyage is one of the most valuable means of restitution to health. The toxic impress will, however, often linger long after departure from the region which gave it birth. We must aim, therefore, to regenerate the normal constitution of the blood. Quinin is, in such cases, of comparatively little efficacy. It is of value only as a general nerve tonic, given in moderate doses and associated with iron and arsenic. Iron is the remedy upon which we must chiefly rely. Irritability of the stomach may, for a time, interfere with its administration. In that case it is best to begin with some of the more elegant ferruginous preparations alluded to when discussing the treatment of chlorosis, or the ammonio-citrate of iron may be subcutaneously injected. An excellent plan is to begin the treatment by the use of kumyss. Small doses of Fowler's or Pearson's solution of arsenic assist the action of iron. Black pepper will also aid the action of the remedies mentioned. Podophyllin or podophyllotoxin is of service when there is decided hepatic involvement. The functions of the liver may likewise be promoted by the administration of euonymus or iris. Eucalyptus is a good remedy in chronic malaria. Dioscorea villosa, or wild yam, is of undoubted service and may be advantageously used in conjunction with iron, quinin and arsenic. I esteem the chlorate of potassium as of value in this condition by virtue of its favorable influence upon the composition of the blood.

*Amyloid Degeneration.*—Amyloid disease occasions a peculiar waxy pallor of the skin. Inasmuch as this degeneration is secondary to chronic suppuration, especially of bones, its therapy must be regarded as rather prophylactic than remedial. After deposits have taken place in the liver, spleen or kidneys, the case is not far removed from a fatal issue. The chief causes of the infiltration are scrofulosis, tuberculosis and syphilis. It is essential, therefore, that a correct and early diagnosis be made and every possible measure be taken to prevent or avert the course of chronic suppuration. Antiseptic methods and improved surgical technique have abbreviated the course of many chronic suppurative processes, and we may infer that amyloid degeneration is not now as common as it was a quarter of a century ago. Surgical intervention, together with the use of iodoform, aristol, europhen, alumnol or other disinfectants operate upon the original cause. The constitution needs support by the use of codliver oil, phosphorus, iron, strychnin, hoang-nan, kumyss, alcoholic beverages, etc. If syphilis underlie the degeneration it claims its own appropriate treatment.

*Graves' Disease.*—The normal pigmentation of the skin is sometimes disturbed in exophthalmic goitre. Most commonly it is accompanied by discolored patches, resembling chloasma. In other instances the opposite condition obtains, and spots devoid of pigment, similar to those of vitiligo, are seen. These patches may receive the local treatment adapted to an abnormal increase or decrease of pigmentation. In treating the constitutional cause we endeavor to moderate the excessive action of the heart and derangement of the nervous system and to improve the quality of the blood. The best means at our command for fulfilling the last requisite are travel, change of scene and climate, cheerful company, a nutritious diet, an out-door life, and the administration of iron and arsenic. In order to strengthen the nervous system and allay cardiac excitability we must rely upon belladonna, digitalis, aconite, strophanthus, veratrum viride, spartein, sulphate, opium, cannabis indica, the bromids and hydrocyanic acid. Galvanism is also of service.

*Addison's Disease.*—The bronzing of skin and mucous membranes which usually occurs in this affection is generally associated with degenerative changes in the supra-renal capsules. Caseous, cretaceous, fatty, tubercular and cancerous lesions have been found in different cases. Exceptions exist to the general statement, however, for on the one hand, pigmentation may occur without disease of the capsules, and on the other, structural alterations of the adrenals may be unaccompanied by pigmentation of the skin. In some instances of pigmentation the capsules are unaffected but lesions are found in the solar plexus, cœliac plexus or semilunar ganglion.

These facts of pathology leave little room for hope of improvement. The malady steadily progresses to a fatal termination, and therapeutic efforts seldom exert any influence upon its course. It is proper to administer reconstructive medicine together with a nutritious diet. The late Professor Flint mentions a case in which decided improvement, both as regards general symptoms and the bronzing, took place in consequence of general faradization and galvanization of the sympathetic. The amendment continued for two years, when a rapid decline was followed by death within a few weeks.

*Leprosy.*—Leprous macules vary in color from pale red to dark brown. Exceptionally they are white and shining. The nodules or tubercles are of a deep red or brown tint. In those rare instances when tubercles are absorbed, an atrophied and pigmented spot indicates their former situation. A white or pigmented cicatrix is also left after rupture of the bullæ which precede an outbreak of anesthetic lepra. Patches of discoloration and other anomalies of pigmentation are observed in this disease. Unfortunately, our ability to ameliorate leprosy bears no correspondence to our knowledge of its etiology, pathology and symptomatology. Improvement is sometimes observed from the persistent use of chaulmoogra oil, gynocardic acid, ichthyol, and the external use of gurjun oil or cashew-nut oil, etc.

*Syphilis.*—Spots resembling chloasma sometimes occur during the first year of syphilitic infection. They are more common in women than in men, appear most frequently upon the face and neck, are smooth to the touch, vary in size and shape, and range in color from dark gray to yellowish brown. Sometimes spots occur having a blanched surface surrounded by a darkened periphery. The so-called "pigmentary syphilide" is not a direct manifestation of syphilis, but is rather the result of the toxic influence of that disease upon the terminal filaments of the cutaneous nerves. The discolored spots are uninfluenced by anti-syphilitic treatment. The deposit is situated principally in the deep strata of the epiderm, though the superficial layer of the derma is, to a less degree, infiltrated.

These pigmentations may be treated in the same manner as chloasma dependent upon other causes.

*Heart Disease.*—A pallor is the result of the anemia which develops in the course of chronic heart disease, especially fatty heart and stenosis of the mitral or aortic valves. Our efforts in these cases must be directed to keeping up the nutrition of the cardiac muscle by means of iron, strychnin, kola nut, potassium chlorate, etc., together with fresh air and nutritious diet. The habits must be regulated and the action of the heart influenced, according to the circumstances of the case, by digitalis, caffein, strophanthus, etc.

*Morbus Cæruleus.*—Cyanosis depends upon malformation of the heart, great vessels or lungs. The color varies from a duskiness to purple or almost black. It is not always the same, but is deepened by physical exercise and mental excitement. The blood is deficient in oxygen and contains an excess of carbonic acid. All that can be done in the way of treatment is to maintain bodily heat by warm clothing and warm rooms, to avoid excitement, to restrict the diet to easily digested food and to administer digitalis with the aim of strengthening the heart.

*Carcinoma.*—The alteration in the composition of the blood induced by cancer is evidenced by the cancerous cachexia, a peculiar icterode and earthy hue of the skin. Of the treatment of cancer I need say no more than that I attribute some importance to the exclusion of meat from the diet for periods of months at a time. No drug has any certain action upon the progress of the disease. Early excision, especially if the growth be superficial, may be followed by complete recovery. A continuous use of corrosive sublimate in alternation with arsenic may retard the course. In tumors unamenable to operation I should be disposed to try the effect of injections of pyoktanin, as practiced by Professor Moorhof. The published results are, indeed, conflicting, but good seems to have been accomplished in some cases.

*Melanosis.*—Excessive pigmentation occurs in certain cases of both sarcoma and carcinoma. These varieties are always rapidly destructive, and little good can be effected by any mode of treatment.

*Argyria.*—This dull bluish-gray discoloration is comparatively infrequent at the present day, since we no longer rely upon silver in the treatment of epilepsy and have learned to use it cautiously in locomotor ataxia. It has been sought to remove the color by the use of iodid of potassium but the results have been very unsatisfactory. Alkalin lotions have also entirely failed. Silver is valuable in the management of many chronic nervous maladies, but should never be uninterruptedly administered for a longer period than a month or six weeks. The advent of argyria is indicated by the appearance of a bluish line upon the gums, similar to that produced by lead.

*Arsenicism.*—The prolonged use of arsenic sometimes gives rise to a yellowish or brownish-yellow discoloration of the skin. The pigmentation may be diffuse or localized to regions already the seat of some cutaneous malady. This discoloration gradually disappears after suspension of the remedy.

*Freckles.*—In this common lesion the pigmentation is removed by the same local measures which have already been described as efficacious in chloasma. Among the most reliable agents to employ are copper oleate, corrosive sublimate, and salicylic acid.

*Striæ atrophicæ.*—Atrophic lines and spots, of a glistening, bluish-white color, due to partial or complete rupture of the superficial bundles of connective tissue by extreme distension, the common causes of the stretching of the integument during pregnancy, dropsy and obesity. They may also be produced by flatulence and the presence of abdominal tumors. These lesions are permanent.

*Vitiligo.*—I have seen no result from any form of internal treatment. The most success attends the effort to remove the darkened margins which surround the white patches. This object may be accomplished by means of galvanism, mercurials, tincture of iodin, soft soap, acetic acid or carbolic acid. It has been attempted to excite pigmentation in the patches by the use of sinapisms, cantharides, capsicum, croton oil, turpentine, ammonia and other irritant substances.

*Morphœa.*—This disease requires constitutional treatment. The most effective remedies are codliver oil, phosphorus, iron, quinine, arsenic and the chlorid of gold and sodium. The most promising local measures are massage, galvanism, mercurial potash soaps and mercurial lotions. These applications may be used singly or in combination.

*Scleroderma.*—Hygiene, nutritious food, change of climate, and tonic medicines, such as iron, quinin, strychnin, arsenic and codliver oil are required in this affection. Locally, massage, electricity, warm baths, and stimulating ointment are the most efficient means at our command. The ointment of copper oleate, half a drachm to the ounce of lard, or a mixture of half an ounce of green soap and an ounce of mercurial ointment are the most satisfactory unguents. Electrolysis, in the hands of Brocq, produced decided improvement. As a rule, treatment is but of little avail in scleroderma.

*Tinea versicolor.*—The yellowish or brownish discoloration of this affection can be removed by the use of a parasiticide of which I give the preference to the oleate of copper, which can either be diluted with oleic acid or made into a 10 or 20 per cent. ointment. This remedy not only destroys the parasite upon the surface but penetrates the interstices of the cells. It is of importance, also, that the surface should be cleansed by means of medicated lotions of borax and thymol, for example, instead of plain water. I am satisfied that the use of water facilitates the development of the fungi. Other agents which may be used are alcohol, naphthol, resorcin, carbolic acid, creolin, and an ointment containing chrysarobin and a 1 per cent. of picrotoxin.

*Nævus pigmentosus.*—The best treatment for this lesion is excision. The ethylate of sodium, galvanocautery, the actual cautery or the ligature may also be successfully employed.

*Xanthoma.*—These yellowish patches or tubercles can be removed by excision, cauterization, the application of a 10 per cent. solution of corrosive sublimate in collodion and by electrolysis. As the cause is unknown we have no rational constitutional treatment and can only use systemic remedies in response to the general condition of the health. A course of nitro-muriatic acid, with an occasional blue pill, and followed, after a time, by the administration of arsenic was suggested by Erasmus Wilson. Besnier advises the administration first of phosphorus and subsequently of turpentine.

*Xeroderma pigmentosum.*—This rare affection begins at an early age. The lesions generally appear upon the face and under the eyes. At first they resemble freckles but, at a later stage dilated capillaries can be discerned upon or between the lesions. Finally the affected spots become more or less atrophied. It is apt to be followed by new formations which, in most instances, are of malignant character. It is advisable to remove the tumors at an early date. No treatment seems to have any influence upon the disease.

## A CASE OF AMŒBIC DYSENTERY.

BY FRANKLIN E. MURPHY, M.D.
KANSAS CITY, MO.

Cases of amœbic dysentery, which have been reported in recent years, are of especial interest as evidence is afforded which shows that not only may the so-called tropical dysentery exist at a distance from the tropics, but also that the disease may originate in localities very much farther north than has heretofore been supposed.

The case reported and described by Osler in 1890 called attention to its occurrence in the United States. The report of this case, the first reported in North America, prompted a special study of chronic dysenteries and since that time other cases have been reported.

At the Johns Hopkins Hospital, the most extended study of amœbic dysentery has been made.

Councilman and Lafleur (*Johns Hopkins Hospital Bulletin*, Vol. II, 1891) review the literature of this disease, and analyze a number of cases occurring in Osler's wards, together with a few other cases; in all fifteen.

A case has been demonstrated by Musser in Philadelphia. Stengel, in Philadelphia, has also demonstrated the disease. Other cases I have seen reported, have been by West of Galveston and Harris of Atlanta. Hektoen of Chicago, reports the case of a man who contracted the disease in Texas.

The history of the following case is given as determining the existence of the disease in this part of the country, and as a case having its origin here:

R. H., age 30; tailor, native of Russia, has been in the United States ten years. Six years in New York; four years in Kansas City. Family history excellent; has never at any time in his remembrance been sick in bed. In this four years residence in Kansas City, he has never been away from the city. Patient first seen Oct. 11, 1893.

About June 1, 1893, patient was attacked with diarrhea which he attributed to indigestible food taken. This continued for some days when he noticed the stools were blood tinged. He was treated by a physician and improved. Relapse after relapse occurred, each relapse greater in severity than the preceding. At one time the number of stools passed in the twenty-four hours was fifteen to twenty.

He went to a hospital and under treatment became much better. When he left the hospital he was having about three semi-solid passages in the twenty-four hours. Since that time he has been growing steadily worse until at the present time and for the past week has been having thirty to forty stools in the twenty-four hours. The stools are very offensive and he suffers more at night.

The shop at which he works is supplied with water from a shallow well. At his home, city water is used.

Patient is greatly emaciated and anemic; skin of a sallow earthy color, dry and harsh; tongue flabby and slightly coated. Temperature 99⅕, pulse 90, respiration 22. Examination of chest negative; no enlargement of the liver could be made out. Abdomen soft and very tender to pressure in epigastrium, and in the area corresponding to the splenic flexure of the colon. The stools were watery, brownish in color, contained much mucus and were alkalin in reaction. At times they contained blood-tinged gelatinous masses.

On microscopic examination were found blood corpuscles, pus cells, epithelium, crystals of triple phosphate and amœbæ in active motion.

The amœbæ correspond to descriptions given. They were five to eight times the diameter of a red corpuscle and in the active amœba a division into ectosarc and endosarc could be clearly made out. The granular interior contained microörganisms and some contained red corpuscles. In one very active amœba five red corpuscles were counted. Larger or smaller vacuoles were present in the body of the amœbæ and a change in size of larger vacuoles was detected. The movements were of progression and thrusting out of blunt pseudopodia. In the gelatinous masses found in the stools were at times present, shreds of a material lighter in color, in which the greater number of the organisms were found. In feces brought a distance of several squares, through the cold, no movement in the amœbæ could be detected. On slightly warming the slide the movements were induced. I had several opportunities of examining the feces immediately after being passed. In these were found the most actively moving amœbæ. Slowly moving amœbæ would be stimulated to more active motion on gently warming the slide.

Among the amœbæ in motion were found bodies a little larger than white corpuscles. They were motionless, granular, contained a nucleus and were highly refractive. These bodies, I think, correspond to those described by Losch and thought by him to be spores.

In the treatment of this case, rest was enjoined and the usual dietetic treatment instituted. High, rectal injections of dilute solutions of quinin limited the number of stools and the amœbæ were decreased in number. The best results were obtained from large enemata of water acidulated with nitric acid, the internal use of salol and Dover's powder and tonic doses of quinin.

A sufficient length of time not having elapsed, I am not justified in pronouncing a cure in this case. The general condition of the man is good. He is gaining flesh, and is at work. From this, I am encouraged to think there will be no return of the symptoms.

## WHAT THE GENERAL PRACTITIONER SHOULD KNOW ABOUT DISEASES OF THE EYE.

BY W. A. FISHER, M.D.
CHICAGO.

Yesterday I noticed an article in the *American Practitioner and News* with the above title, written by a professor of diseases of the eye in a medical school, and read before a State medical society. His ideas were so foreign to mine and so different from most of the teachings of the present day, that I am prompted to write this article.

It is conceded by most of the teachers of medicine to-day that the recent graduate should know more of diseases of the eye than most physicians now practicing their professions as regular practitioners. It is injurious to the doctor, the specialist and the patient that he does not know more. The patient often suffers by not being referred to the specialist in time, simply because the doctor does not make a diagnosis and patients are often sent to the specialist, or drift into his hands when it is too late for any one to be of service to them. As a rule the student has no examination on the eye, or so little that he gives it little or no attention. If he was compelled to know some things that would be of practical benefit to him he would learn these the same as he does other things that are required. The student is supposed to know how to use the microscope to a limited extent and it is highly proper that he should. He puts in a good many hours on work that is not as useful to him in many ways as the use of the ophthalmoscope, when one-half that time spent in use of this valuable instrument in a practical way would be of much more importance to him in his every-day work.

The article that inspired this one, cautions the doctor against glaucoma, advises its early diagnosis and prays him to send it to the specialist. This is good advice, and I think all will agree with him. But the same article advises the doctor not to attempt the use of the ophthalmoscope for several reasons; among them, it will not pay, the instrument costs too much, the time for learning the use of it will be too long and he can not keep in practice. He is also advised not to fit glasses. In answer to the first one, we might ask what will pay better? The cost of the instrument is trivial; the best, or one of the best ophthalmoscopes on the market, the one I and many others use, costs $10. The time necessary for learning is comparatively short, and if he once learns how can he forget it? The writer of the article alluded to also says the doctor should not attempt to fit glasses. He surely does not advise the doctor to refrain from fitting glasses because it will not pay. If it were not for the specialist's refractive work his income would be seriously contracted. It is a matter of very great importance to diagnose glaucoma early, but if he is barred from the use of the ophthalmoscope, how can we expect him to make an early diagnosis? The doctor does not want to send a case to the specialist for operation, and have him returned with a pair of glasses and a complete cure. Then how can we expect him to refer his cases of glaucoma until he knows he has glaucoma; and barring the ophthalmoscope he would be seriously handicapped in an early diagnosis. Any doctor with ordinary intelligence should be able to diagnose glaucoma, with the aid of the ophthalmoscope, in less than a dozen hours in a practical way, and if he can do that in such short time with the instrument costing $10, I consider his time well spent; and when he can do that much, he can do more. Unless he can use the ophthalmoscope he will be at a loss to tell much, if anything, about diseases of the eye. If he can diagnose glaucoma with the aid of the ophthalmoscope, he can diagnose atrophy of the optic nerve, and how valuable it will be to the physician to be able to diagnose glaucoma and optic atrophy in the early stages. It will certainly be a great help to his patients who chance to have these dreaded diseases. It is not much to the doctor's credit to diagnose glaucoma and optic atrophy when the patient is blind, only to recommend him to some asylum for the blind. The time to make a diagnosis of either of these diseases, to be of service to the patient, is in the early stages; to demonstrate this, I will mention a case sent to me for consultation by a former student, Dr. Shinn, of Chenoa, Ill:

Mr. B.——, age 58, retired farmer, consulted Dr. S.—— about October 1, 1892. Diagnosis, beginning optic atrophy of both eyes. Mr B. has been an excessive drinker and smoker; advised to stop both; he partially quit. Dr. S.—— referred him to me Oct. 10, 1892, as he thought with another opinion he might have better control over his patient. R. E. V. = 20-40; L. E. V. = 20-60 +. Diagnosis, optic atrophy. Not only advised total abstinence, but told him if he did not abstain he would certainly be blind. This he seemed to appreciate. Dr. S. put him on strychnia hypodermics. A letter from Dr. S. Jan. 1, 1893, says: "Patient is a total abstainer." He is not able to give exact results as Mr. B. is away for a short time, but he is no worse.

Dr. Shinn made the diagnosis and realized the importance of early abstinence from alcohol and tobacco, and sent him to me to have the diagnosis confirmed and the patient impressed with the importance of early treatment. This patient has had the benefit of the profession, for his diagnosis was made when he complained to his family physician. Dr. S. recognized the worth of the microscope and ophthalmoscope; came here last summer and learned to use them. He has certainly made it pay if he never gets another chance, and whatever benefit the patient may receive he will owe to Dr. S. How much credit should he receive if he had made the diagnosis when his patient was blind?

(Dr. S. has received $25 for his trouble in this case and says he has had more than that much satisfaction; and while he don't consider himself an expert with the ophthalmoscope, he could not get along without it in a general practice.)

The doctor ought to know enough about the microscope to diagnosticate troubles he might find by examining urinary deposits, etc., at least; he can learn the use of the ophthalmoscope just as easy and in as short a time. The doctor should know how to use the ophthalmoscope to aid him in spinal affections, particularly tabes dorsalis, locomotor ataxia. Last week a doctor was referred to me by an optician to fit his wife with a pair of glasses, he failing to get any improvement in her vision. I found she had atrophy of both optic nerves. Upon further examination found she had tabes dorsalis. We often find atrophy when the ataxic symptoms are slight or absent. Albuminuric retinitis often gives us such a distinct picture that from it, alone, a diagnosis is often made.

I will not attempt to say what eyes the doctor should treat; it depends upon his diagnostic ability, and if he can not use the ophthalmoscope he will not make many early diagnoses of diseases of the fundus, and if he does not have the diagnosis, treatment is out of the question. I would not advise a

physician to use a drug in a single case in which he has not made a satisfactory diagnosis; but if he can make a diagnosis and has some good text-book on ophthalmology, he can often find good treatment for his patient. Diagnosis first always, then treatment. I will report a case of glaucoma where the ophthalmoscope was not used:

Mr. K., age 64; first taken with severe pain in eyes and loss of vision four months ago. The doctor ordered hot applications; the attack passed off in a few days; returned with severe pain one week later—same treatment. This treatment was kept up with medicine internally until I saw him about four months after first attack, when I told him there was nothing to do for him, that promised anything, but an operation, and that did not promise much. He was astonished, for he had never had an intimation of an operation. He consented to the operation, which was done next morning; was relieved from pain, but no improvement in vision.

I do not say all cases of glaucoma would have useful vision with an early operation, nor do I say this one would, but early diagnosis in glaucoma and optic atrophy is the only chance the patient has, and for such cases, if for no other reason, why should the doctor ignore or be barred from using the ophthalmoscope?

Primary glaucoma is a common disease, constituting about 1 per cent. of all cases of eye disease, and the general practitioner sees many of the cases early. Many cases are unfortunately sent to the ophthalmologist too late for any benefit because of an improper diagnosis in the beginning. Inflammatory glaucoma is often confounded with iritis and irido-cyclitis, and treated with atropin, which is contraindicated in glaucoma. Cases of glaucoma simplex which present no external symptoms are often mistaken for beginning cataract, and put off to get ripe until iridectomy is too late.

I saw a patient in the hospital to-day, with senile cataract of both eyes, who spent one year in a poor-house and was sent to the blind asylum, where he remained four months. He was resigned to his fate, learning to make brooms as other blind people do, when he was found by an oculist and sent to the hospital for an operation. He has good perception and good projection, and I have every reason to believe he will be reading a newspaper by the time this is in print. Then why should the doctor ignore the ophthalmoscope?

Now for the fitting of glasses. From a specialist's standpoint, the doctor might be barred from fitting glasses, and I believe with the surgeon that cases of laparotomy should be done by the surgeon; but there are some cases of laparotomy that must be done by the doctor or not done at all, "and the doctor must do something." Some patients must have glasses prescribed by the doctor or not prescribed at all, and if he is looking for the financial gain, to say nothing about the good he does his patient, he will find it quite successful work. If he makes a mistake and gives the wrong glasses he has not done an irreparable damage, but can make another effort and change the glasses, and if he finds he can do no good he will have done no harm. I will report my first dozen cases I fitted with glasses when I was practicing general medicine:

*Case 1.*—Annie R., age 16; symptoms, headache and blurred vision; could not read or sew but a few minutes when everything would blur and run together; if she persisted she would have severe headache.

L. E. V. = 20-20; R. E. V. = 20-20; no improvement with glasses ordered.

R. Atropin sulph . . . . . gr. iv.
Aq. dist . . . . . ʒi.

M. Sig. Gtts. ii in each eye four times a day for three days. L. E. V. = 20-80, with + 0.25 ⊂, with + 1.25c 180 = 20-20. R. E. V. = 20-20.

Ordered above for continuous work; result, complete relief from all headache; can read and sew as long as she wants to; no blurred vision.

*Case 2.*—Ethel McK., age 17; nearly constant headache; had to go to bed two or three times a week with sick headache. R. E. V. = 20-20, with + 0.50 = 20-20; L. E. V. = 20-20, with + 0.50 = 20-20.

Ordered atropin as in Case 1. R. E. V. = 20-120, with + 1.50 = 20-20; L. E. V. = 20-120, with + 1.50 = 20-20.

Ordered above for continuous wear; result, relief from all headache. She did not think the glasses helped her looks and left them off one night to go to a spelling match. Sick headache returned; she tried it several times with the same result and found she could not get along without them.

*Case 3.*—J. N. K., age 39; sick headache so often and had tried so many things he thought it was natural, and would take a dose of morphia and sleep it off. R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20, accepts no glass.

Ordered atropin as above. R. E. V. = 20-40, with + 1. = 20-20; L. E. V. = 20-40, with + 1. = 20-20.

Ordered above for continuous work; they seemed to help him for awhile, but soon laid them aside.

*Case 4.*—Mrs. H. M. F., age 27; watering and burning sensation in eyes. R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20, accepts no glass.

Ordered atropin as above. R. E. V. = 20-80, with + 1.50 = 20-20; L. E. V. = 20-80, with + 1.50 = 20-20.

Ordered above for constant use; could not wear them; changed to + 1. each; no benefit.

*Case 5.*—Eliza C., age 17; constant headache. Others, as well as myself, had treated her at different times with temporary benefit.

R. E. V. = 20-20, with + 0.25 = 20-20; L. E. V. = 20-20, with + 0.25 = 20-20.

Ordered atropin as above. R. E. V. = 20-60, with + 1.25 = 20-20; L. E. V. = 20-60, with + 1.25 = 20-20.

Ordered above for constant use; headache all disappeared.

*Case 6.*—Hattie H., age 10. Chorea for several years; others, as well as myself, having treated her with varying success.

R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20, accepts no glass.

Ordered atropin as above for one week.

R. E. V. = 20-60, with + 1.25 = 20-20; L. E. V. = 20-80, with + 1.25 ⊂ with + 0.25 c 65 = 20-20.

Ordered above for continuous wear. Medicine stopped to see what glasses would do; result better than when taking medicine; so much improved the parents thought she needed no more medicine. Two years later all nervous symptoms had disappeared and she is well.

*Case 7.*—Mrs. J. R., age 30. Eyes have been failing for the past year; can not see to do close work; headache when attempting to do such work.

R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20, accepts no glass.

Ordered atropin as above for three days.

R. E. V. = 20-80, with + 1.50 = 20-20; L. E. V. = 20-60, with + 1. = 20-20.

Ordered above for constant use; result perfect; says she could not do without them.

*Case 8.*—Mrs. J. D. C., age 26; headache and blurred vision.

R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20; accepts no glass. Ordered atropin as above for three days.

R. E. V. = 20-50, with + 1. = 20-20; L. E. V. = 20-50, with + 1. = 20-20.

Ordered above for constant use; result perfect; could not get along without them. Ordered a duplicate, so would not be without glasses if they should break.

*Case 9.*—Thos. F., age 19. Medical student. While taking his first course of lectures he was troubled with headaches; about Christmas they were so severe he consulted one of the professors, and he advised him to go home, fearing typhoid fever. After being home for a few days his headaches disappeared and he felt all right. As I was beginning to be an eye specialist, I attributed his trouble to his eyes.

R. E. V. = 20-20, with + 0.50 = 20-20; L. E. V. = 20-20, with + 0.50 = 20-20.

Ordered atropin as above for three days.

R. E. V. = 20-120, with + 1.75 ⊂ with + 0.50 c 100 = 20-20; L. E. V. = 20-120, with + 1.75 ⊂ with + 0.25 c 90 = 20-20.

Ordered above for constant wear. He returned to school and has had no more trouble; has graduated and is now wearing same glasses; could not get along without them.

*Case 10.*—Mr. G. F. F. age 25. Farmer. Eyes water and burn when reading in the evening.

R. E. V. = 20-20; accepts no glass; L. E. V. = 20-20 accepts no glass.

Ordered atropin as above for three days. R. E. V. = 20-40, with + 0.50 = 20-20; L. E. V. = 20-40, with + 0.50 = 20-20.

Ordered above for constant use and to my surprise they gave perfect satisfaction; he also had duplicate made after he had broken them so he would always have a pair.

*Case 11.*—Maud G., age 18; blepharitis marginalis both eyes.

R. E. V. = 20-20, accepts no glass; L. E. V. = 20-20, accepts no glass.

Ordered atropin as above for three days.

R. E. V. = 20-60, with + 1. = 20-20; L. E. V. = 20-80, with + 1. ⊃ with + 0.50 c 90 = 20-20.

Ordered above for constant wear; result, complete recovery. I had treated her many times with temporary benefit with yellow oxid of mercury ointment.

*Case 12.*—Annie S., age 3 years. Converging squint alternating for one year. Ordered atropin same strength as above three times a day for one week; fitted her by retinoscopy; examined in four weeks; result, perfect when glasses are on; converging when glasses are off.

*Case 3.*—Was a case of muscular asthenopia and he might have been relieved had he been in more competent hands, but while I did him no good, I did him no harm.

*Case 4.*—Received no benefit. I do not think I could benefit her any now if I were to try again. She did not like the looks of the glasses and that may have had something to do with the result; at least, I did not benefit her any.

I had a patient in my clinic, Illinois Charity Eye and Ear Infirmary, not long since, suffering from headaches. She was relieved by glasses, but she had a divergence. She was operated upon for convergence by a surgeon not long since. Had she been fitted with glasses in first place she might have saved herself two operations, the one the surgeon did and the advancement to correct it.

Operations for squint should not be attempted by the doctor unless he can correct errors of refraction.

## WAS IT SYPHILIS?

BY S. F. ROGERS, M.D.
TROY, NEW YORK.

This question could in all fairness be asked, after a careful analysis of the subject, particularly the evidence presented, in the very able paper, read last June before the Section on Surgery and Anatomy at the forty-fourth annual meeting of the AMERICAN MEDICAL ASSOCIATION, bearing the title, "The Antiquity of Syphilis, and Moses as a Health Officer," by Dr. J. T. Jelks of Hot Springs, Ark. In this paper the Doctor has evidently touched the keynote of discussion; and without doubt, has been the means of turning many thinking men in a direction hitherto not sought, for clinical evidence in the diagnosis of disease. I think it quite worthy the profession to turn aside for a moment from our text-books, and consider some of the leading points in the arguments presented by Dr. Jelks, from a Scriptural standpoint. However, it will be our aim (as the reader will observe), in the treatment of the subject, to have it suggestive, rather than exhaustive; to render full justice to every argument and quotation presented by Dr. Jelks, would swell this paper to a volume of no small dimension.

The reader will observe the necessity of first carefully perusing Dr. Jelks' paper, and then, with the open Bible, study with us the evidence presented; not forgetting the fact, however, that—for a purpose—the Doctor has quoted from the writings of Dr. Buret, who carefully gathered all his *Scriptural* evidence from the Latin version of the Hebrew text (edition of 1715, found in the National Library at Paris). Let me state for the benefit of the reader, this Latin version is an obscure volume—the very location teaches that—an edition known to a few; used by Dr. Buret, however, to prove his arguments. His purpose, as you will very readily see, could not be met, had our more modern or common versions been consulted. The great difference will be plainly seen, by comparison of the quotations, which will account for the remark by Dr. Buret: "We show our preference for the Latin version." (1715). (Why?) It will be unnecessary to remark, that, granting the preference to either the Latin or the more common versions, the evidence is very hypothetical in the former, and much more so in the latter. With our knowledge of Hebrew history, it would not be arrogance to suppose that syphilis did prevail to some extent, and was a disease then as now, much to be dreaded.

We are not, however, justified in asserting that syphilis was prevalent among the prominent Bible characters. A great deal of question hovers over such terms as plague, pestilence, etc., words used in the Scripture many times, without any definite meaning, i. e., specific name; thus we are not at fault if we do not know just what the plague was. The declaration shows a visitation on the people, of divine judgments. However, there are many instances given (I think about one-half), where the nature of the plague and pestilence are fully defined. The ten plagues which visited Egypt during the captivity; as also the leprosy. This latter is amply elucidated in Leviticus, thirteenth chapter. I would ask the reader to carefully peruse this chapter throughout, and see if he does not see in it more of the laws and tokens given to enable the priests to correctly establish the differential diagnosis between leprosy and a prevailing, yet harmless skin disease, than he does of any symptom accompanying syphilis.

It will be well to remember also, that this chapter is referred to by Dr. Buret in his endeavor to prove secondary and tertiary syphilis. As before remarked, Scriptural writers have in many instances given us but a vague idea of what many plagues were. See in this connection Num. 16: 46. Here a plague is spoken of as begun, also the same chapter (fiftieth verse), the same plague was stayed. Num. 11: 33 records a like instance. Not to over-tax our readers farther, we will close this line of thought with this fact; that plagues were administered in various ways, not necessarily in the form of sickness or bodily infirmity. (See plagues of Egypt also, Deut. 28: 59, 60, 61.) These verses in Deuteronomy might be accepted as the key to the term, plague, by enabling us to assimilate our minds to the circumstances and conditions of the people living at that age, and upon whom the plagues rested.

Let us bear in mind the fact, that medical men are not *entirely* exempt from all weaknesses of the flesh; one of which is a great tendency on the part of human discoverers to plainly see what they are seeking for; particularly a "diagnosis." It has been said the "seekers after a miracle will accept anything rather than be disappointed." It is not ours to say such is the case with either Dr. Jelks or Buret whom the former quotes. We observe, however, objects can be presented to the vision in varied hues, according to the color of the light cast upon them; rendering many times the true pigment quite obscure.

In the case before us, Dr. Jelks accepts the diag-

nosis of syphilis among the Hebrews, made by Dr. Buret, who "shows a preference," for the obscure Scriptural light before alluded to. We are free to confess, the Doctor's object *could* be gained by the aid of such a light reflected upon the science of etiology—with less strain upon the imagination than any other. When Scripture is called upon to prove, not only the antiquity of syphilis, but any other reasonable doctrine, men are quite apt to grasp at the old and sacrilegious adage with a great deal of vehemence. True, there are some rather strong passages quoted to prove such doctrines.

We recognize in the subject before us, a possibility of producing some which could be used as a fulcrum, upon which to place the strong lever of scientific research, viz.: the twenty-fifth chapter of Numbers. In this, if there be any, is the strong hold of the syphilitic argument, and yet the writer would feel safe in saying there is not a physician at the present day who would dare to diagnose so grave a disease as the one in question with so little clinical evidence.

The plague here spoken of *might* have been syphilis. Evidence is lacking to warrant a too decisive opinion in either direction. However, we do claim the evidence is greatly wanting to prove this disease, in the persons presented by Dr. Buret, and from whom Dr. Jelks quotes. Space in this JOURNAL will not permit a too lengthy discussion of every detail; therefore we will cast some glances at Scripture along the narratives in which Sarai, the wife of Abram, and David the king of Israel occupy a prominent position. Sarai is mentioned by Dr. Buret as being the infective agent in the household of Pharaoh. (See narrative in Gen. chapter xii to end.) We here see that Sarai's beauty was the passport of admission. At the same time we must not lose sight of the existing custom among Egyptian rulers: Gen. 12: 15. This action of Abram was the result of his best judgment, founded on a knowledge of this custom; and to save his life these methods were resorted to. Abram explains his situation and feelings in a similar peril. (Gen. 20: 11.) "I said, surely the fear of God is not in this place, and they will slay me for my wife's sake." This also applies to their condition while with Pharaoh, vividly marking the character of that ruler, whose unbridled lust would not stop at murder to gratify its passions.

When the offended Deity troubles Pharaoh for his sin, he lays the blame to Abram for leading him astray by this device. Right at this point the question presents; could Sarai be afflicted with syphilis, and Abram have no knowledge of the same? Again, if such was her condition, would not Abram have presented the fact to Pharaoh, as the strongest possible argument against prevailing custom or passions? Would a syphilitic subject be so extremely comely as to attract the attention of the king? Have we any just reason to presume, that both Abram and Sarai were ignorant of the fearful consequences accompanying syphilis? Not in the least. This could not possibly have been the true situation.

Note also the time of their marriage relations. Sarai's barrenness, yet in possession of great beauty; so many years a syphilitic subject, in a land where therapeutic measures were simply rudimentary, if known at all. Again, please consider the intervening time between the admission of Sarai into Pharaoh's household, and the visitation of the plague mentioned. Was it sufficient for the true nature of syphilitic poison to manifest itself among so many? correctly considering the stages of incubation, primary lesion, etc.! We have reason to suppose—if this were the case—the word, wife, would have been supplemented by the word, syphilis, or its equivalent Hebrew term, to finish the interrogation of Pharaoh to Abram, when Sarai was returned to him: "Why didst thou not tell me that she was" (syphilitic)?

Can we presume for a moment this disease was not known among so licentious a people as the Egyptians? Let me ask you to turn to Gen. 17: 1 to 6. Here we find Abram, at ninety-nine years, covenanting with the Almighty (verse 4); here we notice a change in name occurs (verse 5); also a change in name for Sarai (verse 15); the promise continues, viz.: "She shall become a mother of nations." This occurs prior to the sojourn at Gerar; also (to continue the narrative) we see Sarah, "old and well stricken in years, and it ceased to be with Sarah after the manner of women." (Gen. 18: 11). At this time we recognize Sarah as having passed the menopause, and to this the passage refers; and to this Sarah herself refers, when she laughed at the announcement. In this condition she is found by Abimelech the king, as before alluded to. (See Gen. 20: 2.)

Now it would be quite reasonable to ask Dr. Harmonic of Paris—to whom Dr. Jelks refers—what causes the barrenness in Sarah at this time, syphilis or menopause? Our modern Scripture (Gen. 18: 11) says, "and it ceased to be with Sarah after the manner of women." In this statement we recognize the menopause, at which time, (according to the quotation by Dr. Jelks from Dr. Harmonic's "Monograph on Venereal Diseases among the Hebrews," the Doctor in alluding to Sarah says: "It is not irrational to suppose that syphilis was concerned in this sterility. It disappeared with age in Sarah, who became pregnant late; which is good proof that her sterility was not due to organic causes; and, outside of syphilis, we can not see any other disease of genital origin, which would correspond with the foregoing facts.") We see by this quotation that the disease "disappeared." Granting the Doctor's statement correct, we would ask how Sarah could convey the disease to Abimelech, after all the foregoing changes mentioned had taken place? All of which did occur, prior to her sojourn at Gerar. And yet, notwithstanding all this, the Doctor charges Sarah with the crime of imparting syphilis to a man whom the Scriptures declare she had no connection with, nor ever saw, prior to the period of menopause; at which time, according to the Doctor's own statement, the disease (if she ever had it) had disappeared. It will be well to state, before leaving this part of our subject, the penalty in the case of Abimelech is more definite than in the similar incident with Pharaoh, the term, plague, being used without a specific definition; while in this latter case the plague is well defined (see Gen. 20: 18): "For the Lord had fast closed up all the wombs of the house of Abimelech, because of Sarah, Abraham's wife."

The writer already feels like asking forgiveness for so much time and space already taken, and will briefly consider the part taken in this by Israel's king. That David was a great sinner, as also a great repenter can not be denied. Yet according to our common versions of Scripture we fail to find evidence that he was a syphilitic subject. Dr. Jelks quotes Dr. Buret in his paper as authority that he was. To

prove the argument, the Latin version (1715) is again "proffered." The statement is advanced that David contracted syphilis from Uriah's wife, (see narrative chap. xii. Kings). The reader will remember that this Latin version does not give the same division of its contents into books and chapters, as our common version, which *we* prefer; and we ask your attention to II. Samuel, chap. xii. In this we recognize the blackest chapter in the life of David. Much more space is given in the Bible to this one crime then to many of his virtuous achievements. The object in this will be seen by the Bible scholar as obvious; a line of thought which, were we to follow would lead us farther from the subject now in hand; and we will but glance at it from this direction, viz.: the simple fact that this was a great sin against God and Uriah, does not establish the fact that Bathsheba had syphilis. Again, the child dying does not prove the same. While the twenty-fourth verse, tells us that, "David comforted her and went in unto her, and she bare a son, and called his name Solomon, and the Lord loved him."

The reader will very readily see the time here mentioned is remarkably short for Bathsheba and David—both pronounced syphilitics—to recover sufficiently to bring forth so healthy an offspring as Solomon. If the first was a case of congenital syphilis, what can we look for in the second? Our best judgments in this case would hesitate before pronouncing either of them syphilitic. Stopping just to glance at the lamentations referred to by the Doctor, we would ask the reader to consider the following, (these are all the quotations contained in the Scriptures, wherein the word, bones, is mentioned) and see if there are any syphilitic bones to be discovered among them: Ps. 6:2; 22:14; 31:10; 32:3; 35:10; 38:3; 42:10; 102; 3:5. Particular attention is asked to the prophetic psalms, the twenty-second having been quoted by the Doctor, which is conceded by our most biased Bible scholars to contain no allusion whatsoever to David, but is a grand prophetic description of the sufferings of Christ, whom none would declare to be syphilitic.

The reader will see many words occurring in the Latin (1715) so preferred by the Doctor, that do not occur in any place in our common versions. For instance, the words, cure and mocked, do not appear in the Psalms. As for the words, opprobrium, healthy, ulcer, or ulcers, they are not in the Bible, i.e., our common version. The careful student, looking more for Scriptural facts than a diagnosis of syphilis, will plainly see the Psalms, especially the prophetic, are speaking so beautifully and often in poetic metaphor of the coming Christ, and not the syphilitic symptoms of which David the king, is supposed to be the direct sufferer. Proof of this will call our attention to the thirty-eighth Psalm as a sample of what they contain, regarding the punishments by disease inflicted upon David, as mentioned by Dr. Buret. I would ask the reader to consider, with this Psalm, in order to better define our argument, what the punishment was: See Ps. 6:1; Deut. 32:23; II. Sam. 16:12; Ps. 31:10; 40:12). By this, we are more enlightened regarding the use of such terms as arrows, bones, loins, etc. The word, loins, being considered by all Bible scholars as being the seat of strength; a weakened or exhausted condition therefore calls forth groans, etc. (See Rom. 8:26).

The reader of Dr. Jelks' paper will notice great emphasis is laid on such symptoms as are recorded in the seventh verse of the thirty-eighth Psalm. This is one of the very strongest arguments that David was syphilitic: "For my loins are filled with a loathsome disease: and there is no soundness in my flesh." See also, second verse of same Psalm: "For thine arrows stick fast in me, and thy hand presseth me sore." These have been previously alluded to and commented on. The word, tongue, is found only in the following Psalms: (Ps. 22:15; 35:28; 39:1, 3; 45:1; 51:14; 66:17; 119; 172; 137:6; 139:2). The reader of these will see at a glance there is no reference whatsoever to a disease of any kind. The worship of Baal-peor, as quoted by the Doctor will, I think, receive the indorsement of all Bible students, as the narrative seems clearly to show that this form (and they were many) of Baal worship was connected with licentious rites. The bloody health officer, Moses, however, did not slay (kill by the steel) twenty-four thousand. Here another great difference may be seen between the two versions: Verse nine of this twenty-fifth chapter of Numbers reads: "Those that died in the plague (what plague, syphilis or ?) were twenty and four thousand." However, you will see in I. Cor. 10:8, only twenty-three thousand perished from pestilence. By this, we must remember Moses includes the thousand *only* who died by the execution of the judges. In other words, Moses only caused to be killed, one thousand.

Dr. Buret's Chinese history will permit of no question by the writer—neither the historic skulls and tibiæ excavated from the caves and dolmens of France, the tombs of the Incas, or mounds of the United States; in these every physician will agree, having any knowledge whatever of syphilis and its lasting results.

To the medical profession, the writer would say: This has been written in reply to those arguments presented by the Doctor, regarding the persons mentioned; not defending the great wrongs, which were many (especially David's), but as the old saying reads: "Give the Devil his due." After a careful study of the subject the writer does not dispute the existence of syphilis among the Hebrews, and every other people that ever existed, since the foundation of the earth. But we think our common versions *will not bear us out*, in pronouncing the disease upon either of the prominent Bible characters mentioned by Drs. Jelks or Buret. A glance at Bible history will convince the reader, why these Latin versions (and they are many) are not pronounced to-day as correct versions, particularly the version of 1715.

---

## MIGRATION OF SYPHILIS FROM EAST ASIA INTO AMERICA BY WAY OF THE BEHRING SEA.

BY ALBERT S. ASHMEAD, M.D.

NEW YORK.

LATE FOREIGN MEDICAL DIRECTOR TOKIO HOSPITAL, TOKIO, JAPAN.

In the October issue of the *Sei-I-Kwai Medical Journal* re-appear two articles of mine, both on pre-Columbian syphilis, in which I endeavor to show a possible relation between East Asia and pre-Columbian America.

The antiquity of syphilis in Japan and China is admitted by all Japanese students. Waké and Tamba, who both belong as far back as the seventh

century, mention this disease. The authors of the Dai-do-rui-shiu-ho[1] refer to a medicine used against it by Sukunahiko, the Esculapius of Japan, who lived in the time of Jimmu Tennō (660 B. C.) In China, syphilis was certainly known in the Chu dynasty 1122 B. C. to 314 B. C. From China the disease is supposed to have come to Japan, in the migratory way, landing first at some harbor in the Hijen district, it may have been Nagasaki. Hence, the newcomer spread in all directions over Japan.

China itself seems to have imported syphilis from the south, as it has received smallpox from the north. Both these facts are affirmed by very hoary authorities; they call syphilis the demon of the south, and smallpox the demon of the north. They have no doubt but that the first of these monsters originated in heat and moisture, the southern elements, and that the other was born from cold and frost, the elements of the north.

If I observe here that smallpox penetrated first into northern Japan, being introduced from Tartary, the reader, remembering what I said before, that syphilis first settled in Hijen, will be struck by the fact that the same thing happened here as in China: syphilis from the south, smallpox from the north. We may presume, therefore, that there was some reason for the belief of these ancient writers, that syphilis arose in heat and moisture, and smallpox in cold and frost; besides, it is but fair to consider that these writers were 3,000 years nearer to the origin of both plagues than we are.

Let us see whether the same manner of introduction which we have found in China and Japan, is also that of American syphilis.

Syphilis is admitted by Prof. Brinton to have existed in America when Columbus landed. Yet this author will not see any connection between ancient Americans and East Asiatics; in fact, he denies it positively. He is inclined to think that the disease existed independently in America and in Europe, and that Columbus, therefore, could not have introduced it from Europe to America. Now, if syphilis existed in America, that is the now Spanish America, before the arrival of Columbus, it either originated in the south, in moisture and heat, to speak with the Chinese, for nowhere but in the south have we any evidence of its presence, or it was brought over, say from China or Japan. This happened, if at all, by way of migration, for commerce there was none. We hear, indeed, of a drifting of Chinese junks to ancient Peru and Ecuador; of course, this may be only a myth. But the fact that the Aztecs of Mexico, and the Incas of Peru, the most ancient American races, came from the north, is not mythical. If they came from the north, say from the Behring Sea, it is reasonable to believe that they crossed from the nearest point of Eastern Asia.

Mr. Farnsworth, recently, in *Science*, speaks of the carvings and designs of the Alaskans and Vancouver Indians as being Japanese in appearance. He also believes that at some remote period, some people from Japan had drifted into these regions, and left there traces of the arts of the mother country. It seemed to him that some Indian traditions clearly point that way. "In looking over the collections in the Exposition at Chicago," says Mr. Farnsworth, "it occurred to me to verify these facts. In the Anthropological Building was a large collection of 'totem poles,' carved implements, and drawn figures from Alaska, also from California, Mexico, Central America and Peru, as well as from other parts of the Americas. In many places Japan was largely represented.

"There is a most striking difference between the arts of the Western coast and the interior of America. They have something of the grotesqueness of Japan, but not much other likeness. They are akin to those of ancient Mexico, and would indicate that the arts and the people of the Western coast were of like origin; that the 'totems' and other figures of Alaska and Vancouver are survivals of the arts of Central America and ancient Mexico."

Now, if a Japanese settlement was formed in Alaska, syphilis must have existed in it, and if the Alaskans and Vancouver Indians were directly connected with Central America and Mexico, the syphilis of these two countries from which we derive our first knowledge of American syphilis, had a northern origin.

Judge Wickersham of Tacoma, Washington, thus speaks in *Science*, Dec. 8, 1893, under the title, "Pottery on Puget Sound:" "That the reader may not be misled by the above headline, I hasten to say that there never was any aboriginal pottery made either on the Columbia River, Puget Sound or in the regions northward to Alaska. Baskets of such strength, firmness and texture were made, however, that the absence of pottery was not a hardship upon the Indians, for they carried water in baskets, and even boiled food in them by the use of hot rocks constantly dropped in the water. But what lesson, if any, can the ethnologist learn from the absence of pottery on this Northwest coast?

"Let us first look at the character of the civilization existing here prior to the advent of the white man, and compare it with that of other localities—say San Francisco Bay, but a few hundred miles farther south on the same shore. The Indians of Oregon, Washington, British Columbia and Alaska made and constantly used the finest canoes in the world, capable of holding fifty or sixty men. They fearlessly pursued the whale on the Pacific Ocean far out of sight of land; and fastening their harpoons to the monster, by the use of inflated bladders they caused him to float, and after his death he was towed by a line of great canoes to the shore, where, landing the huge carcass, his captors feasted in truly Indian style. But a few hundred miles away the Indians of San Francisco Bay rode on a raft or bundle of reeds! The conclusion follows irresistibly that a different aboriginal civilization existed from the Columbia River northward to Alaska than that on San Francisco Bay. From a careful examination of the archæological remains it seems quite certain that the lines connecting the middle type of civilization of the Puget Sound region with other American civilizations lay—one up the Columbia and across to the Ohio region, and the other by way of the Snake River, Great Salt Lake and the Pueblo region, and connecting with the Mexican country. But in each of these regions—in Ohio and Mexico—we find pottery in abundance, but none in the Puget Sound basin. This can not be on account of lack of material, for the finest potter's clay exists in great beds throughout this region on the surface, and many potteries now work it. What is the conclusion,

[1] A work composed 806–809 A. D.

then? It is that the high civilization of the Northwest coast did not come either from the East or South!

"This middle type of civilization on Puget Sound made splendidly carved war canoes; the finest basket work in America; featherwork like the Aztecs; metates like those of Moqui; woven blankets equal to the Navajo; worshiped the sun like the Mexican, and made stone gods equal in carving to those of Central America; as carvers of wood they have no equals in America; they were artisans skilled in carving, weaving and painting; they built permanent homes of great posts and cedar boards, exactly like the Mongolian tribes of Asia—exactly like the Japanese; their beds were arranged on each side of the house on platforms in the true Mongolian style; their language yet preserves the identical tongue spoken by the Apache and other southern Athapascans; many pure Aztec words linger north of Puget Sound—and yet they made no pottery!

"No nation ever lost the art of pottery-making. The art never was known to the people of this northwest country; though they are cousins to the Algonquins and Aztecs, and brothers to the Apaches, yet they had not the art possessed by these people of making vessels from clay. Not a trace of the potter's work can be found in the Columbia River or Puget Sound regions. Although these people are of kin, yet in this particular they are as distant as the poles. It follows that the Athapascans of Mexico learned the potter's trade after they left the early home of their kinsmen on Puget Sound; it also follows that the Apache and kindred tribes were migrants from the North, and it is true that the Algonquin was not a potter until after he reached the Mississippi Valley.

"It seems to me that one certain result follows from the known facts, viz.: That the Athapascan tribes of Mexico, and possibly the Aztecs, migrated to Mexico from the Puget Sound region—for if our Athapascans came to the North from Mexico and settled in the Puget Sound basin, why did they not bring that most characteristic manufacture, pottery, with them? I take it that the conclusion must be conceded that the migration was southward, and not by San Francisco Bay, either, but via Great Salt Lake to Mexico.

"Humboldt, Prescott and other eminent authorities place Aztlan, the ancient Aztec hiving place, in the Puget Sound region, and certainly the absence of pottery here is a strong additional fact in support of their statements. If, now, it be conceded that the hiving place of the Aztecs, Apaches and other southern Athapascans was on Puget Sound, may it not also be granted that this is some further proof of the Asiatic origin of the same tribes?"

If the conclusions of Judge Wickersham are true, they directly connect the Ohio mound-builders and the Aztecs with the northwestern settlement I have referred to above, and therefore the earliest traces of syphilis in America, which we find in the bones of Ohio and Tennessee mound-builders and of ancient Mexicans, have also an East Asiatic origin.

This becomes still more probable, if we consider the extreme of antiquity of syphilis in Eastern Asia. An autochthonous syphilis in America, which we should have to admit, if we accept Dr. Brinton's assertion that there is no connection between East Asiatics and Americans, commends itself to us as little as the autochthonous syphilis and smallpox of the Chinese.

The route from Behring Sea seems to me the only satisfactory solution.

## SELECTIONS.

**Experiments with Intra-Venous Injections of Solutions of Sodium Chlorid in Cholera Asiatica.**—In a paper read before the Dorpat Medical Society, Dr. Karl Dehio gives the results of numerous experiments pursued by himself and his colleague, Dr. Graubner, in the treatment of Asiatic cholera. These experiments consisted in the intra-venous injection of warm salt solutions in the later stages of cholera. Dr. Dehio considers the hypodermic method of injecting, as recommended by Samuel and Cantani twenty years ago, of no value whatever, as it is not only painful to the patient, but the solution is not as quickly absorbed as the serious condition of the case would necessitate. Dr. Dehio states that he uses a process similar to that employed by Ziemssen in his well-known operation of blood transfusion. A sharp, hollow needle about three times the size of an ordinary hypodermic needle is introduced through the skin into a large subcutaneous vein, to which is connected the rubber tube of an Esmarch irrigator, which has previously been filled with a warm, sterilized salt solution. A vein is selected in the forearm near the elbow-joint or on the posterior aspect of the leg. The introduction of the needle is usually difficult, owing to the very slight distension of the vein, but this was overcome by compressing it over the seat of the intended puncture, and by a stroking motion of the hand from below, the vein becomes more prominent. By preventing the overlying skin slipping, the vein could be easily pierced. Between the needle and rubber tubing is fastened a glass connection or tube of about 5 cm. in length by which, besides furnishing a convenient handle, the presence of air in the tube could be at once detected, and prevented from entering the needle. The temperature of the injected fluid was kept at from 37 to 39 degrees C., and was easily controlled by a thermometer introduced into the receptacle. As it was necessary to prevent cooling during its passage through the tubing, the fluid in the reservoir was kept some degrees above body temperature. A height of from two to four feet furnished sufficient pressure for the fluid to flow steadily into the vein, and within a half hour as much as one to two liters was introduced.

Antisepsis was thorough, and the needle, apparatus and field of operation were all sterilized before proceeding with the operation. If the needle could not be as quickly introduced as was necessary, a small incision was made in the vein, and after the operation closed with cotton and collodion dressings.

In this manner, Dr. Dehio, in connection with Dr. Graubner, chief physician of the Dorpat Cholera Hospital, performed thirty intra-venous injections in eighteen cholera cases. These experiments were all made on patients in whom there was pronounced collapse and an almost imperceptible radial pulse. All were deeply cyanotic and ice-cold. As much as 2 liters of the saline fluid was injected at one time, but usually 1½ liters was found to be sufficient. The operation was discontinued as soon as the radial pulse could be distinctly felt and counted, and was repeated whenever the cyanosis and pulse indicated approaching collapse.

In nearly all instances the patient seemed to revive somewhat, the pulse became stronger and the heart sounds clearer, and the patient again complained of the muscular cramps from which he had ceased to react. The effect, how-

ever, was only temporary, lasting from three to six hours, the case again relapsing into its former condition.

Dr. Dehio details a number of cases and the different effects of the intra-venous injections, the effect of which were all marked. The pulse became stronger, the eyes which before were deep sunken and glassy, brightened, the patient became conscious of his surroundings and able to answer questions put to him. Of the eighteen cases detailed, only three were saved. In five of these, however, the stage of asphyxia was safely overcome and the direct cause of a change for the better was clearly due to the injections, but death was caused by the sequela.

In conclusion Dr. Dehio says: "One thing is certain, that the injections are infallible to enliven the heart's action and circulation, and as it can not be assumed that these injections of salt solutions had any chemic or therapeutic action on the heart, the actual strengthening of the heart-beat can only be explained by the fact that the injection increases the volume of blood in the vascular system. The blood pressure is increased, and as we know, every elevation of blood pressure necessitates a stronger heart contraction. In so far as the weakness of the circulation in cholera depends on the thickening of the blood, from loss of its serum, we certainly have it in our power to prevent this. Although, notwithstanding the fact that we have succeeded, in only a few cases, in keeping up the heart's action it is proof that the fatal cardiac failure does not alone depend on the diminished volume of blood, but must have other causes. These causes I consider the poisoning of the system by the absorption of the toxin in the bowels. It is this which injures the heart's automatic action and above all, acts directly on the heart muscle causing the weakness of the circulation.

"In all of the postmortem examinations made there was invariably found a high grade of parenchymatous changes in the heart.

"It is clear that the thinning and increasing of the blood through the saline injections is in itself unable to eliminate the poison; if it were, recovery would be certain. It is not to be expected that these injections contain specific antitoxic action; in order to eliminate the poison we must depend on the action of the kidneys. Our experience has shown that the injections have no effect on the kidneys; the anuria is not relieved by increasing the blood-circulation, a fact which proves that in the kidneys of cholera patients we have not to deal simply with an ischemia, but parenchymatous changes, which like those in the heart muscle, is due to the toxic poisoning.

"Although we have in these intra-venous injections efficient means to overcome the cardiac weakness, the main point is not reached any nearer than in the old hypodermic method.

"*Where the poisoning of the system is not severe enough to destroy life in itself*, and where heart failure has not become irreparable, *then* the injections are able to save life. In the majority of cases, however, the conditions are not so favorable. We have noticed in *postmortems*, that the universal dryness throughout the body, (as in the serous and mucous membranes, et cetera) is not found where these injections have been used. The fact that the injections are less effective when undertaken later in the disease, is due to the higher degree of poisoning present at that time.

"I quite agree with the views and experiences of Rumpf in the recent Hamburg epidemic, with the intra-venous injections. That these saline injections are, with rigid antisepsis entirely safe, Fränkel has already shown. The edema of the lungs was not found more frequently than in the other cholera dead who were not injected.

"Better results might be expected if these intra-venous injections could be combined with diaphoresis. The favorable effects of hot baths in the algid stages of cholera, as well as the great praise given to hydrotherapy might be a point in its favor It is possible that the peripheral circulation could be improved and more fluid absorbed if the patient could be brought into a free perspiration. Then possibly the increased activity of the skin would replace the function of the kidneys and eliminate the toxic products."—DR. KARL DEHIO in the *St. Petersburg Medicinische Wochenschrift*, December, 1893. [Abstracted for the JOURNAL].

# BOOK NOTICES.

**Hernia: Its Palliative and Radical Treatment in Adults, Children and Infants.** By THOS. H. MANLEY, A.M., M.D., Visiting Surgeon to Harlem Hospital, etc. 8 vo. cl. pp. 231. Philadelphia: Medical Press Co. 1893.

The scope of this work is sufficiently indicated by its title. Its author is a well-known member of the AMERICAN MEDICAL ASSOCIATION, and an experienced general surgeon.

The author while pessimistic as to the advantages of the operation for the radical cure of hernia, nevertheless gives a resumè of the different operations in vogue, and furnishes a table giving the results of his own operations.

The author's conservatism is shown in the following from page 227, where referring to his own operations:

"At the present time, my purpose, when I herniotomize, is not so much to secure a radical cure as to place the hernia in such a position that it will give no inconvenience, and may be safely controlled by a truss support."

The book is marred by many typographical errors, but notwithstanding is a valuable addition to the literature of the subject.

**A Practical Treatise on Nervous Exhaustion.** (Neurasthenia); Its Symptoms, Nature, Sequences, Treatment. By GEO. M. BEARD, A.M., M.D. Edited with notes and additions by A. D. ROCKWELL, A.M., M.D. Third edition (enlarged) 8 vo. cl. pp. 262. New York: E. B. Treat. 1894. Price, $2.75.

In this edition of this excellent monograph, Dr. Rockwell has added a short chapter, recapitulating some points in the etiology and pathology of neurasthenia as developed by recent investigation.

The book which everywhere preaches the gospel of temperance, and advocates rest as the panacea, concludes the volume with a quotation from Benedict: "If the Americans would learn from the Germans how to amuse themselves, instead of yawning on holidays, the danger of neurasthenia would be diminished. Whoever has not learned how to play and jest, easily succumbs to mental work."

**How to Use the Forceps,** with an introductory account of the female pelvis and of the mechanism of delivery. By HENRY G. LANDIS, A.M., M.D. Revised and enlarged by CHARLES H. BUSHONG, M.D., Asst. Gynecologist and Pathologist to Demilt Dispensary. Illustrated. New York: E. B. Treat. 1894. Price, $1.75.

The views of the late Prof. Landis upon this important topic were published first in 1876, and in book form in 1880. Dr. Bushong, thinking the monograph contained too much of value to let it be lost to the science of midwifery, has revised the present edition. The book like all Gaul, is divided into three parts. The first is devoted to the mechanism of labor; the second to the forceps, and the third to the application and the recital of typical cases. The book is thorough, well written and trustworthy.

**A Clinical Text-book of Medical Diagnosis for Physicians and Students.** Based on the most recent methods of examination. By OSWALD VIERORDT, M.D., Professor of Medicine at the University of Heidelberg, etc. Authorized translation, with additions by FRANCIS H. STUART, A.M., M.D. Third revised edition, with 178 illustrations, many of which are in colors. Pp. 700. Philadelphia: W. B. Saunders. 1894.

The success of Vierordt's diagnosis has been very great, for we now have a third edition in a very short space of time. The notice of the first translation was published in this JOURNAL, Vol. XVII, 1891, p. 275. It was then greeted as a a welcome arrival, and fully described. In this system of diagnosis, normal anatomy and physiology are the lamps by which the pathologic processes are illuminated. Anatomy is ever kept in the foreground, and its necessary features are frequently brought forward. No scholar can examine

the work without pleasure, and no student can study it without profit. The favorable opinion expressed in respect of the first translation, can be repeated now with the accumulated interest the lapse of time causes us to greet the reappearance of an old favorite.

**Transactions of the American Association of Obstetricians and Gynecologists.** Vol. VI. Philadelphia: Wm. J. Dornan. 1894.

This volume contains the proceedings and the papers read at the annual meeting of the Society for the year 1893.

These papers have for the most part been published as a part of the current medical literature of the year.

The book is beautifully printed and handsomely illustrated, and like every other work performed by the accomplished Secretary, Dr. Wm. Warren Potter of Buffalo, is well done.

**Braithwaite's Retrospect of Medicine.** Vol. CVIII, July to December, 1893. Issued January, 1894. Pp. 412. London: Simpkin, Marshall, Hamilton, Kent & Co.

This well-known periodical, established more than half a century ago, lies on our table and contains the usual condensation of the original articles that have appeared during the preceding six months, in the coterie of excellent journals from which the *Retrospect* quotes, and considering the limited sources of its supply, it has really done a great deal toward establishing the truth of its assertion that it contains a "retrospective view of every discovery and practical improvement in the medical sciences." This rather broad statement would seem to require that the sources of supply be somewhat enlarged. Continental journals are only quoted at second-hand, and only six journals in America published on the eastern fringe of the continent are quoted—those on the fimbriated extremity, so to speak.

**The Diseases of Personality.** By TH. RIBOT, Professor of Comparative and Experimental Psychology in the College de France. Authorized translation. Paper. Pp. 157. Chicago: The Open Court Publishing Co. 1894. Price 25 cents.

The book treats of organic and emotional disorders; disorders of the intellect and dissolution of personality. The author seeks to prove that "the organism and the brain as its highest representation, constitute the real personality, containing in itself all that we have been, and the possibilities of all that we shall be.

"The complete individual character is inscribed there with all its active and passive aptitudes, sympathies and antipathies; its genius, talents, or stupidity; its virtues, vices, torpor or activity. Of all these, what emerges and actually reaches consciousness is only a small item compared with what remains buried below albeit still active. Conscious personality is always but a feeble portion of physical personality."

## NECROLOGY.

**W. W. Waugh, M.D.** of Faribault, Minn., January 8, aged 47.

**William Clark Collins, M.D.,** a veteran of the war with a brilliant record died at Bucksport, Me.

**Samuel W. Duff, M.D.,** at Salem, Ind., January 13, age 53, of apoplexy. He was graduated at Miami Medical College, in 1878.

**Eugene Tisler, M.D.** died recently at Falkenstein, Germany. He was Director-at-large in the Board of Freeholders, served in the Franco-German war, and was 44 years old. For several years he resided at Baltimore, from whence he went to Newark, N. J., where he had much influence among his countrymen. He went abroad for the benefit of his health.

**Joseph Hobbins, M.D.,** died at his home in Madison, Wis., January 24. He was a member of the Royal College of Surgeons, London; Fellow of the Geological Society of England, and Corresponding Member of the Royal Horticultural Society of England. He was born Dec. 28, 1816, in Wednesburg, Staffordshire, England, and was educated in his native country. In 1854 he settled in Madison, where he has lived ever since. He organized the medical department of the State University, and was elected a Professor in 1856. He was a member of Madison's first City Council. He was President of the State Horticultural Society for five years, and by his untiring efforts gained the title of "Father of Horticulture in the Northwest." He was surgeon-in-charge at Camp Randall during the war. His first wife died in 1870, and in 1872 he was married in Baltimore to the youngest daughter of the late Louis McLane of Delaware. The wife and four children survive. A daughter is the wife of Robert P. Porter, Chief of the Census Bureau.

**Herbert Judd, M.D.,** died at Galesburg, Ill., Jan. 10, 1894, of apoplexy, aged 50 years. He was born in Franklin, N. Y., when after a common school course, he went through all the grades at the Franklin and Delaware Literary Institute. He then began the study of medicine with Dr. Albert E. Sullard, remaining with him for two years; then he went to Albany, N. Y., and studied two years with Drs. Freeman and Craig, during which period he attended the Albany Medical College, from which he graduated in 1867. In the spring of 1868 he began the practice of medicine at Galesburg, and in May, 1872, was married to Mary S. Slater, whose death in November, 1892, was a severe blow to him. For many years he occupied a prominent position in the profession, and took a great interest in the medical organizations with which he was connected. He was, for several years Secretary of the Military Tract Medical Association; a member of the Illinois State Medical Society, and also of the AMERICAN MEDICAL ASSOCIATION, to all of which he contributed papers of value mainly upon matters pertaining to railroad surgery. He was for several years Surgeon of the C. B. & Q. Railroad Company, but at the time of his death was Surgeon of the A. T. & S. F. Railroad Company.

Professionally he was strong, and took great delight in exposing fraud. In this, however, he was not always politic and as a result became involved in unnecessary litigation. With all his idiosyncrasies his impulses were right and kind. The writer last saw him in June, 1893, and then noted that he was both physically and mentally breaking. He leaves three sons and many friends to mourn his death.

**Hon. James Cecil Phillippo, M.D., L.R.C.S., Edin.,** of Kingston Jamaica, died recently in his sixty-third year. He was the son of the Rev. James Mursell Phillippo, who, in 1825, at the age of 25, was appointed by the Baptist Missionary Society for service in Spanish Town. He was a graduate of the University of Edinburgh. On returning to Jamaica he began to practice, and in 1856 was appointed Physician to the Middlesex City Gaol. He rapidly made his way in his profession, and was very popular, from the urbanity of his manners not less than from his care and patience as a medical attendant.

In 1860 he was made a Justice of the Peace for the parish of St. Catherine, and in 1863 became a member of the Board of Visitors to the Public Hospital, Kingston, and of the Central Board of Health in 1873. He was President of the Medical Council in Jamaica, and was the first President of the Jamaica Branch of the British Medical Association, and to him, in conjunction with Mr. Gayleard, is due the formation of this, the first Colonial branch of the Association. He was reëlected President in 1885, which office he held until December, 1888. There are now fifty-six members of the Jamaica branch, and it meets regularly for the discussion of scientific and other questions.

Dr. Phillippo was appointed a member of the Commission to inquire into the condition of the juvenile population in 1876, and in 1889 he became a member of the Privy Council of Jamaica. He took a leading part as delegate from the British Colonies at the recent Pan-American Medical Congress.—*British Medical Journal.*

The announcement of his death will be received with sincere regret by the many friends he made during his recent visit to this country, and especially those who came in contact with him during the Congress. He was a good speaker, with a hearty, pleasing manner, and of commanding presence.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE:
PER ANNUM, IN ADVANCE . . . . . $5.00
SINGLE COPIES. . . . . 10 CENTS.
Subscriptions may begin at any time and be sent to

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 68 WABASH AVE., CHICAGO, ILLINOIS.

F. J. REBMAN, LONDON AGENT, 11 Adam Street, STRAND, LONDON.
W. H. LOWDERMILK & CO., WASHINGTON, AGENTS.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

This is obtainable, at any time, by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own Society, signed by the President and Secretary of said Society, with five dollars for annual dues and subscription for THE JOURNAL. Attendance as a delegate at an annual meeting of the Association is not necessary to obtain membership. On receipt of the above amount the weekly JOURNAL of the Association will be forwarded regularly.

All members of the Association should send their Annual Dues to the Treasurer, RICHARD J. DUNGLISON, M.D., Lock Box 1274, Philadelphia, Pa.

SATURDAY, FEBRUARY 3, 1894.

## SUPERFLUOUS SPECTACLES.

A recent discussion in the New York Academy of Medicine gave evidence of a healthy reaction against the one-sidedness which has of late years been noticeable in American ophthalmological literature on the subject of asthenopic complaints. DR. TH. R. POOLEY related his experience with asthenopia not dependent upon errors of refraction and insufficiencies of the ocular muscles, and his views seemed to receive general indorsement.

Germany has not inaptly been called the land of spectacles. But the reason which has led to their extensive employment in that country, viz.: the great frequency of myopia, fortunately does not apply with us to the same extent. Yet it has become the practice of many of our oculists to advise glasses for weak eyes at a rate which would soon lead to their use on nearly as large a scale as in German cities. Is this sound practice?

Of all facts in medicine none are better founded than the knowledge that even moderate degrees of far-sightedness or astigmatism lead in many persons to discomfort in the use of the eyes and often to headaches and other nervous disturbances. The basis for the rational prescription of convex glasses and cylinders is hence as positive as the results are gratifying.

But does every optic defect need correction and is every case of painful vision curable by glasses?

No ophthalmologist can overlook the fact that many persons can tolerate moderate optic defects and some even high degrees of ametropia without ever suffering therefrom. This fact has been well brought out by a statistic published over a year ago by DR. ROOSA. Among 100 persons with normal eyesight and *who had never suffered from asthenopia*, he found only 9 emmetropic. Forty-five persons had hypermetropia of about one dioptry, thirty-nine of about two dioptries and seven over two dioptries. Of the total number only twenty-five had no astigmatism measurable with the ophthalmometer, seven had astigmatism of 0.25 to 1 D in one eye only, thirteen had 0.25, twenty-three had 0.5, two had 0.75, twenty-five had 1 D and four had more than one dioptry of astigmatism in both eyes.

On inquiring into the general health of patients complaining of eye-strain and its consequences it becomes apparent that the amount of optic imperfection which can be tolerated without distressing sensations depends on the vigor of the system at large and especially the condition of the nervous system. It is not rare that patients call for correction of moderate far-sightedness or astigmatism, accept the glasses with satisfaction for the time, but lay them aside as unnecessary after some improvement of their general condition.

Since errors of refraction are stationary conditions, (except progressive myopia which is foreign to this topic) there is hence no object in correcting them, unless they cause some annoyance, be it by poor sight or in the form of discomfort or headache or distress of any kind. If, however, any discomfort referable to the eyes is present, what is the lowest amount of ametropia which can be considered as the cause of the eye-strain?

It is the general experience that a hypermetropia of 0.75 D or any degree of hypermetropia uncorrected to the extent of 0.75 D can cause distress in many persons. But that a hypermetropic eye can appreciate a correction of half a dioptry or less will not be admitted by most observers. There is more diversity of opinion as to the amount of astigmatism which may require correction. While again 0.75 D represents the lowest cylindrical lens which is ordinarily of benefit, cases do occur beyond doubt in which half a dioptry of astigmatism leads to discomfort or headaches.

Such cases, however, are exceptional and occur as a rule only when the general health is below par. It is true that a cylinder of 0.25 D is not only employed but even highly recommended by a few prominent oculists, but they have as yet furnished no proof that such lenses benefit their patients. The majority of oculists have learned from their own experience, as well as from the failures of the champions of the 0.25 D cylinder, that such weak glasses are merely of mythical value.

The history of therapeutics furnishes so many instances of remedial measures highly praised by their originators, endorsed for a short time by their followers, but soon discarded as useless, that we may well decline to believe in the efficacy of 0.25 D. cylinders until convincing proofs are furnished. It must not be forgotten that the accuracy in measuring refraction

has its limits. Whenever the patient's vision is not markedly improved by correction, two equally competent observers can easily disagree up to ¼ or even ½ D. of the astigmatism present.

From the short report of DR. POOLEY's paper and its discussion it does not appear whether the fact was brought out that asthenopia may be of ocular origin independent of the refraction. There are cases of slight blepharitis and mild chronic conjunctivitis often associated with lachrymal obstruction, in which the asthenopic complaints do not depend on ametropia, even if a low degree of it be present, while the patients can be cured by proper attention to the lids or lachrymal ducts. In another small per cent. of patients with asthenopia not curable by glasses, the cause can be found in some intra-nasal lesion and the discomfort removed by appropriate nasal treatment. It is not to the credit of the profession if such patients are ordered to wear useless and often expensive glasses.

DR. POOLEY further emphasized that discomfort in the use of the eyes may be due to a general neurasthenic condition and to derangements in distant organs, the teeth, kidneys and uterus. More stress might have been laid on the relation of digestive disturbances to asthenopia, as observations in practice frequently show not merely a coincidence of the two, but also decided improvement in the eyes when the stomach and bowels receive due care. It is a matter of doubt whether asthenopic complaints can logically be considered as reflex disturbances due to gastric or uterine derangements, or whether they should not more properly be viewed as a part of the neurasthenic condition to which chronic disease of the viscera can lead.

At any rate, the discussion in the New York Academy will be productive of good if it teaches oculists that the eye is one of the organs of the general system, and that in all of those cases where asthenopia is not clearly the result of a demonstrable optic imperfection, its cause must be sought by an inquiry into the patient's habits and general health.

## SMALLPOX.

Outbreaks of smallpox were reported during the past week at a number of places in the country. Chicago and New York seem to be the main points of infection. The former city has almost daily for the last two weeks had its smallpox sensation, in patients riding in street cars and entering crowded public buildings, and finding an infected nest in the Ironside lodging building, where there are now quarantined about one hundred inmates, but nothing like the outbreak that has occurred in the Charity Hospital, Blackwell's Island, New York. The Warden and ten patients suffering from the disease were removed to North Brother Island, and on January 18 the Hospital was placed under rigid quarantine, and the inmates, about one thousand in number, vaccinated. A woman having smallpox was removed from the Florence Mission. The inmates of the Mission are also under quarantine and have been vaccinated.

All these cases came from a single case in which the nature of the disease was not recognized until after death. The patient was taken from a lodging house to Governeur Hospital, where the case was diagnosed as a malignant blood disease. On December 26 he was taken to Bellevue Hospital, and the next day was transferred to the Charity Hospital, and placed in the ward where skin diseases are treated, and on January 2 died. His body was removed to the morgue, where it was kept nearly a week to give friends an opportunity to claim it. Then it was taken to the Bellevue Medical College for dissection. So obscure was the disease that it was only here that suspicion was excited with regard to its true nature, and the Chief Inspector of the Bureau of Contagious Diseases was notified, and upon investigation pronounced it smallpox. It is asserted that the man had two diseases which seemed to run together. The woman taken from the Florence Mission had been employed to keep the ward clean in which the patient was lying.

## CHOLERA.

Cholera still prevails at St. Petersburg, and cases also occur in Belgium. A commission was appointed to investigate the cause of the recrudescence of cholera in St. Petersburg. The commission reports that the fresh outbreak of the disease is not an exceptional occurrence, as exactly similar outbreaks were observed in many parts of Russia toward the end of the epidemic in 1892; that no one particular circumstance or condition can be pointed to as the cause of the recrudescence; and that it can not be ascribed to the increased consumption of dried or salted fish. As the revival of the epidemic followed not long after the commencement of the pre-Christmas fast, when salted fish form the principal article of diet among the orthodox, it was thought that some form of poison had developed in the fish, and that the cases that were set down as choleraic were in reality due to some irritant poison. The commission, however, declares that though many samples of fish have been examined, in none has any poison been found. Many of the cases first thought to be due to irritant poisoning have since been proved to be choleraic by bacteriologic examination of the dejecta. This occurred in a number of cases among the attendants of two orphan institutions in the city. Between December 16 and 20, fifty of the attendants in these institutions were attacked with diarrhea and vomiting, the illness following the consumption by the attendants of salted fish and unboiled water. It was

only after the patients had been removed to the Marie Hospital that the symptoms were found to be due to cholera and not to poisoning as at first supposed.

The disease, however, seems to have altogether disappeared in Germany. There were only six cases of a mild type reported in the German Empire between December 6 and 22, and since the latter date none at all. The *Times'* (London) Berlin correspondent reports that in 1892 there were 19,719 cases of Asiatic cholera in Germany, of which 8,590 died. Between January 1 and March 4, 1893 there were 213 cases and 89 deaths registered, and during the summer there were 569 cases and 288 deaths. In addition to these, there were 92 cases, in which cholera bacilli were discovered in healthy persons who had been infected by intercourse with cholera patients, without, however, suffering any great inconvenience.

## THE JOURNAL.

In our issue of January 6 we printed the following table:

| July 1, to December 30, 1893. | Journal Am. Medical Association. | N. Y. Medical Record. | N. Y. Medical Journal. | Boston Medical Journal. | Philadelphia Medical News. |
|---|---|---|---|---|---|
| Number of Original Articles . . | 240 | 176 | 158 | 132 | 175 |
| Number pages Original Articles | 665 | 334 | 380 | 300 | 397 |
| Total number pages . . . . . | 1,024 | 860 | 816 | 660 | 756 |

The *New York Medical Record* of January 20, asserts that we gave a wrong impression of the relative size of this JOURNAL; "as there are nearly a hundred and fifty more words to a page on the *Medical Record* this is not a fair presentation of the matter."

We were aware that the *Record* page is a little longer than that of the JOURNAL, but the type differs. Thus: in the issue of the *Record* for January 20, there are 32 pages, and an average of 1,400 words to the page; this gives for that number, a total of 44,800 words of long primer type.

The JOURNAL of the same date had 16 pages of long primer with an average of 1,250 words to the page, making 20,000 words of long primer. There were 16 pages of brevier type (counting the nonpareil as brevier) with 1,720 words to the page, making 27,520 words of brevier, and a total for that issue of 47,520 words or **2,720** words in excess of the number printed in the *Record*.

This is really an under statement, for the JOURNAL usually has from one to two columns of nonpareil type, one-fourth smaller than brevier, which would give a still greater number of words.

If we multiply the number of words in that issue by 26, the number of issues in a volume, it will be seen that on an equal number of pages, the JOURNAL led in amount of matter by **83,720** words, and then if we add one-half the number of pages in excess of those of the *Record* it will be seen that the JOURNAL led for the volume by the enormous number of **329,060** *words!*

We had no intention of emphasizing the fact that the AMERICAN MEDICAL ASSOCIATION, now publishes the largest weekly medical journal in America, beyond letting the friends of the JOURNAL know that they were doing well, but as the *Record* challenged the statement, we were forced to complete it. The table, therefore, as will now be seen was rather an under than an over statement.

We have great and enduring respect for the old publishing house that furnishes the medical profession with so excellent a journal as the *Record*, but the AMERICAN MEDICAL ASSOCIATION is greater than any single firm; the JOURNAL is its property, and it has only fairly started. Just wait!

## DENTISTS ARE NOT PRACTITIONERS OF MEDICINE IN MISSOURI.

Dentists are not "practitioners of medicine." So the Supreme Court of Missouri holds, in the case of State v. Fisher, decided Dec. 5, 1893. A statute of that State provides that no person exercising the function of "practitioner of medicine" shall be compelled to serve on any jury. A dentist possessing a diploma, granted him by a reputable dental college, and a city register's certificate, showing the filing of that diploma and the enrollment of his name on the "roll of dental surgeons," steps in, and claims the exemption. But it is denied him.

After an exhaustive consideration of the statutes, to see if they can be given a broader construction, the court becomes somewhat humorous. It says the dentist "evidently feels unsteady on his logical legs," if a sole reliance is to be on the statutory exemptions noted, and so he resorts to the lexicographers, and quotes the definition of "dentist" from the *Century* Dictionary. If he "had delved more deeply into the science of definitions, and had turned another page of the same work, he would have found: 'Chiropodist. One who treats diseases or malformations of the hands or feet; especially a surgeon for the feet, hands and nails; a cutter or extractor of corns and callosities; a corn doctor.' So that if he is exempt from jury duty because, as he says, he 'treats, professionally, diseases of the oral cavity,' so also is his less pretentious professional brother, who with equal scientific skill treats diseases or malformations of the hands or feet, and who is content to be dubbed 'corn doctor.' Certainly, the argument and definition which would support the exemption of the dentist as a 'practitioner of medicine and surgery' would also equally support that of his cognate scientist, albeit of humbler pro-

fessional pretensions. The disposition of persons to magnify and exalt their callings or occupations has become wonderfully prevalent in these latter days."

It is perhaps only fair, after quoting so much of the court's opinion with regard to the dentist—who is also here, by implication, classed with the mechanic who is no longer called a "carpenter," but an "architect and builder;" the solicitor of orders from our retail merchants, who is no longer a "drummer," but a "commercial traveler;" and the loquacious individual who is no longer a "barber," but a "tonsorial artist"—to state that JUSTICE BRACE dissents. He says, among other good things, that while dentistry may have had a humble and comparatively recent origin, it has now become a very important branch of medical science, quoting as his authority, "Address N. S. DAVIS, M.D., to the AMERICAN MEDICAL ASSOCIATION."

### SECRECY IMPOSED UPON CONSULTING PHYSICIANS.

The same rule which governs a regular attending physician in any case, with regard to the communication of what he learns in that capacity affecting his patient, applies as well to a consulting physician. Thus, in the case of Morris v. N. Y., O. & W. Ry. Co., decided Dec. 1, 1893, the Supreme Court of New York, general term, holds that what either a regular attending physician or another called in professionally, as consulting physician, says in consultation in the presence of their patient is inadmissible in evidence. Nor will the fact that they do not agree upon the disease, permit the confidential relation between physician and patient to be rendered nugatory. Here the court cites and follows the decision of the New York Court of Appeals, rendered in the case of Renihan v. Dennin, decided some years ago. In that case it was further held to be of no moment that the patient did not himself call or procure the consulting physician's attendance. He was called by the attending physician. To bring him within the regular rule, it was considered sufficient that he attended as a physician upon the patient and thereby obtained his information.

### WITHIN THE SCOPE OF A PHYSICIAN'S AUTHORITY.

When it comes time for settlement, the question of whether all the services rendered were within the scope of a physician's authority may be an important one. Thus, in the case of the Succession of Short, decided by the Supreme Court of Louisiana, Dec. 18, 1893, some of the legatees contended that the physician's bill was excessive. Among other things the doctor at different times remained a number of extra hours beyond his professional visits, in order to administer medicine and nourishment to his patient, an old gentleman and a personal friend, who refused to receive them from any other hands than those of his physician. Now, where the patient, being feeble, and in a nervous and delirious state, requires attention entirely unusual, and the services are skilfully and faithfully rendered; where surgical operations are performed, and extra time is devoted by the physician in endeavoring to relieve the patient from his sufferings, which are intense, the court holds that the performance of the operations, and the time, in addition to the regular visits, taken in attending the patient, are within the scope of the physician's authority, if, in his judgment, it is necessary.

### A MEDICAL STATESMAN.

DR. GUIDO BACELLI, the Professor of Medicine in the Policlinico of Rome, is sometimes styled "the VIRCHOW of Italy." He has recently been appointed Minister of Public Instruction. He had formerly held the same portfolio from 1881 to 1884. He was late President of the Board of Health for the Kingdom of Italy. He is an eloquent orator, and has been chosen to preside over the International Congress, to be held in Rome, next Easter.

PROFESSOR BACELLI will be remembered as having made the eloquent response, in Latin, to the address of welcome, at the Tenth International Medical Congress. To those who never before heard the Latin language spoken by an Italian, its effect was thrilling beyond expression.

## CORRESPONDENCE.

### Proposed Revision of the Constitution and By-laws of the American Medical Association.

*To the Editor:*—As the report of the Committee, in the form of a *revised Constitution and By-laws* for the AMERICAN MEDICAL ASSOCIATION, made at the last annual meeting, is to come before the next annual meeting to be held in San Francisco, June next for final action, it is desirable that its provisions should be considered with candor and thoroughness. In carefully comparing the revised document as presented by the Committee, with the Constitution and By-laws as they now exist, I find but four proposed alterations of sufficient importance to require notice. These four are: 1, the very faulty, ambiguous, and even contradictory style in which the revised instrument is written; 2, the omission of all provision for general addresses except the one from the President; 3, the abolition of the Nominating Committee and the giving of the nomination of general officers and the recommendation of the time and place of the annual meeting to the General Business Committee; and 4, the total abolition of the representative character of the ASSOCIATION; the abolition of all permanent memberships and the limiting of the annual membership solely to the membership of the several State and Territorial medical societies.

In regard to the first of the foregoing specifications it is no exaggeration to say, that every paragraph of the present Constitution is expressed in language so plain, direct and explicit as to be easily understood, and to admit of no ambiguous or doubtful meaning. Let every reader take up a copy of the Constitution as it is, and compare the clear cut and expressive language in which the origin and objects

of the ASSOCIATION are expressed in the introductory preamble and resolution, with the introductory paragraph called "history," proposed by the Committee on Revision as a substitute. The first says the ASSOCIATION is organized "for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor, and interests of the medical profession; for enlightening and directing public opinion in regard to the duties, responsibilities and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who are engaged in it." The proposed substitute says it is "formulated for the purpose of promoting the *best activity* of a general *medical organization of the profession in North America*." What a contrast! What kind of *activity* is the "best activity?" And what is meant by "a general *medical organization* of the *profession?*" Is it intended for a general organization of the *medical profession* or the general organization of some profession on a medical basis in accordance with physiologic and pathologic laws? And again, by what process can we extend such an organization from the Rio Grand south to the Isthmus and from the Great Lakes to the North Pole? Leaving the initial paragraph, let us briefly as possible compare the language of the present Constitution with that of the proposed substitute in relation to *membership*. The first says: "The members of this institution shall collectively represent and have cognizance of the common interests of the medical profession in every part of the United States; and shall hold their appointment to membership either as delegates from State and local institutions, as members by invitation, as permanent members, or as members by application." The proposed substitute says: "Membership shall be limited to members of the several affiliated State medical societies recognized thereby or represented therein. As membership in these societies is open to all reputable practitioners in each State, the membership in the AMERICAN MEDICAL ASSOCIATION is open to all reputable physcians in North America." Now, which are "the several affiliated State Medical Societies" mentioned in the first sentence, and how are they *affiliated*; and what is meant by the "recognized *thereby* or represented *therein?*" Do the "thereby" and "therein," refer to recognition by the affiliated State societies or by the AMERICAN MEDICAL ASSOCIATION?

After long study, I had arrived near to the conclusion that the Revising Committee intended to declare that, "Membership shall be limited to members of such State medical societies as have been heretofore recognized by or represented in the AMERICAN MEDICAL ASSOCIATION." Such a conclusion, however, only involved me in greater difficulty when I encountered the logic of the next sentence which is in true syllogistic form as follows: "As membership in these societies (meaning of course the affiliated *State* societies) is open to all reputable practitioners in *each State*," therefore, "the membership in the AMERICAN MEDICAL ASSOCIATION is open to all reputable physicians in *North America*." Or, if we put the several parts of the syllogism in more direct connection they would read thus:

1. "Membership (of the ASSOCIATION) shall be *limited* to members of the several affiliated *State medical societies* recognized thereby or represented therein."

2. "As membership in *these societies* is open to all reputable practitioners in *each State*," therefore

3. "The membership in the AMERICAN MEDICAL ASSOCIATION is open to all reputable physicians in North America." But why stop at North America? Are there any more "*affiliated State medical* societies in British America, Mexico, Central America and the West Indies, than there are in South America or in the several States of Germany? Are there any petitions on file from the physicians in all the inhabited parts of North America asking for *annexation* to the affiliated State medical societies" of the United States? Or does the Committee on Constitutional Revision intend to take them in *vi et armis?*

While, as has been shown, the first sentence of the section relating to membership positively declares that membership in the ASSOCIATION "*shall be limited to members* of the several *affiliated State medical societies*," yet before we get half way through that section we read: "Any member of a recognized State or *local* medical society may become a member of the ASSOCIATION by presenting," etc.; and a few lines further, we read: "All members of the recognized State or *local* medical societies who are unable to attend the annual meeting may become members of the ASSOCIATION," etc. It is quite as difficult to understand how the membership of an association can be *limited* to members of *State societies*, and at the same time receive members from various *local societies*, as it is to see why the eligibility of reputable physicians to membership in the several State societies of the United States and through them to membership in the AMERICAN MEDICAL ASSOCIATION, should make all the reputable physicians in North America eligible to membership in the same ASSOCIATION. Still further on in the same section we find the expression: "All State medical societies with their *constituent local societies*," without anything to indicate what is meant by a "constituent local society." It is well known that there is no uniformity in the organization of State and local medical societies throughout the United States. And consequently there is no recognized standard by which to decide what constitutes a recognized or "constituent" local medical society, except as given in the present Constitution, namely, "such county and district medical societies as are recognized by representation in their respective State societies." But this definition is rendered inapplicable by the fact that the Committee on Revision throughout the section on membership takes no recognition of *representation* by delegates or otherwise, but directly abolishes all representation by delegates so far as relates to the AMERICAN MEDICAL ASSOCIATION. The introductory paragraph called "history," and the section on "membership" from which we have been quoting, constitute nearly all the *original* work of the Committee on Revision, the rest of the revised instrument being nearly all copied from the present Constitution and By-laws. And the ambiguous, indefinite and inconsistent if not positively contradictory language in which they are expressed, should cause their prompt rejection by the ASSOCIATION, if there were no other objections to the work of the Committee.

The second important change in the Constitution and By-laws proposed by the Revising Committee, is the omission of the provision for three general addresses at each annual meeting. Section XIV of the present By-laws reads as follows: "The ASSOCIATION shall annually elect on the nomination of the Nominating Committee, three members of the profession, eminent in some of its departments, to deliver addresses in the general session of the next ensuing annual meeting—one on some topic or topics relating to general medicine, another relating to general surgery, and the third relating to public medicine, including under that head hygiene, sanitation, prophylaxis, education and medical legislation, each of such addresses not to exceed one hour in its delivery." Under the operation of this rule, each annual meeting has been provided with one important, carefully prepared address for each general session, by including the address of the President on the first day; and in no other part of any general session is the audience so large or so attentive as during the hours assigned for the delivery of these addresses. They are the most efficient items on

the program of each general session to enlist the attention of the many general practitioners and hold them in attendance from day to day. These addresses are, with very few exceptions, among the most important papers that fill the Transactions of the ASSOCIATION. Similar general addresses have constituted, certainly, one of the most attractive features of the annual meetings of the British Medical Association throughout its whole history. And the AMERICAN MEDICAL ASSOCIATION, instead of omitting them altogether, as is done in the revised By-laws of the Committee, should only exercise greater care in obeying the letter of the existing By-laws by electing *only* members of the profession actually "*eminent* in some of its departments."

The *third* important change proposed by the Revising Committee is the abolition of the Nominating Committee and the requiring of all nominations of officers and the recommendation of the times and places of the annual meetings to be made by the General Business Committee, which is to consist exclusively of *ex-chairmen* of the several Sections. This identical change was proposed when the amendment of the Constitution creating the General Business Committee was adopted at the meeting in Detroit in 1892, but was stricken out by a decisive vote. It was claimed with much emphasis that the general officers and place of annual meeting for a truly National organization, like the AMERICAN MEDICAL ASSOCIATION, should be nominated by a committee composed of, at least, one member from each State and Territory having members present. On the other hand, the General Business Committee is, or will be hereafter, composed exclusively of ex-chairmen of the Sections, and therefore almost certainly concentrated in a few large cities, instead of representative of the profession of the whole country. This is well illustrated by the fact that of the thirty-six members constituting the General Business Committee at the present time, eight are residents of Philadelphia, five of Chicago, four of Cincinnati, and two of Detroit. And of the twelve present chairmen of Sections, who will become members of the Business Committee at the close of the next annual meeting, one-half are from two cities, namely, three of Philadelphia and three of Chicago. A committee thus constituted may prove practically efficient for the better regulation of the work of the various Sections, and may constitute a convenient and safe body to consider and report upon such questions and topics as may be referred to it by the ASSOCIATION, but it certainly can not be regarded as a direct representative of the profession in all parts of the country. Consequently, if the nomination of the general officers of the ASSOCIATION should be confided to it, as is proposed by the Committee on Revision, it would constitute a long step in the direction of lessening the interest of the great body of general practitioners in the ASSOCIATION and of concentrating all control in the hands of the specialists. Objectionable, however, as are the three foregoing proposed changes in the Constitution and By-laws, they are far less important than the fourth, which is embraced in the section relating to membership. For, whatever may be the faults and inconsistencies of language used in its construction, as I have already pointed out, there is no difficulty in seeing clearly that its adoption would at once destroy the representative character of the ASSOCIATION, and rapidly reduce its National character by placing the control of each annual meeting directly in the hands of the profession of the State in which the meeting is held. It makes no provision for delegates representing State, county or district medical societies, and no conditions for permanent membership. A very careful study of the whole section will show that four conditions are made essential for the acquisition of membership in the ASSOCIATION: 1, the applicant must be a member of some one of the "several affiliated State medical societies recognized thereby or represented therein;" 2, the State society, to be recognized, must have accepted the Code of Ethics of the ASSOCIATION; 3, the applicant must present to the Treasurer of the ASSOCIATION a certificate that he is a member of a recognized State society, in good standing, accompanied by five dollars as the annual membership fee; 4, if he desires to attend or participate in the work of any meeting of the ASSOCIATION, he must present to the Committee of Arrangements, both a certificate of his good standing in his recognized State society and his receipt from the Treasurer of the ASSOCIATION that his dues for the year are paid. And if he fails to comply with the foregoing conditions for one year his name must be stricken from the roll of members. The section also declares that, "no person shall be permitted to take part in any annual meeting until he or she has completed the conditions of membership at that meeting and can exhibit a certificate to this effect from the Committee of Arrangements."

The whole section would have been much more explicit and easily understood if it had simply declared, that the members of all State and Territorial medical societies adopting and upholding the Code of Medical Ethics of the AMERICAN MEDICAL ASSOCIATION shall be eligible to membership in the last named organization; and that any member of such State or Territorial medical societies may at any time become a member of the National organization by sending to the Treasurer a certificate showing that he is a member of his State society in good standing, accompanied by the annual subscription price of the JOURNAL OF THE ASSOCIATION, five dollars, and therefor shall receive the JOURNAL one year; and during the same year may attend and participate in an annual meeting, by presenting his receipt from the Treasurer and an additional certificate of his good standing in his State society to the Committee of Arrangements. If he fails to renew his subscription to the JOURNAL for *one* year his name must be stricken from the roll of members. No thoughtful reader can fail to see that the adoption of the section under consideration, as proposed by the Committee on Revision, would utterly destroy the general representative character of the ASSOCIATION and rapidly reduce the permanency of its membership. The several State and local medical societies no longer appointing delegates with any special or important functions, the attendance from parts more distant from the place of meeting would be less; the interest of the State and local societies in the ASSOCIATION would grow less from year to year, and each annual meeting would be completely under the control of the members living within one hundred miles of the place of meeting, one-half of whom would allow their membership to expire the very next year for non-payment of dues. By thus abolishing the representative character and permanency of membership on the one hand, and the placing of all nominations and business questions in the hands a Business Committee composed exclusively of ex-chairmen of the several sections it would not take five years to convert the AMERICAN MEDICAL ASSOCIATION into as perfect an agregation of specialists and with as limited a basis of membership as is the so-called Congress of American Physicians and Surgeons. While the Committee on Revision make considerable pretension of placing the ASSOCIATION more "*in touch*" with other medical organizations, and of even taking in "all of North America," every important change they propose would actually produce directly the opposite effect as I have shown.

On the other hand, our present Constitution by its liberal provision for *delegates* from State and local medical societies, most effectually encourages the formation and support of such societies in every part of our country; and by limiting the privilege of voting to such *delegates*, it equally estab-

lishes and maintains its own true National representative character, and guards against centralization and local or sectional dominance. By awarding to such delegates the privilege of remaining permanent members and participating in all the doings of the ASSOCIATION except voting, by continuing to pay the annual dues; and by the section on admission of permanent members by *application* without the expense of attending an annual meeting, the door is kept wide open for every member in good standing in the recognized State and local medical societies to make himself or herself a member of the NATIONAL ASSOCIATION whenever he chooses to do so.

Consequently, the present Constitution and By-laws are more liberal and more in harmony with every legitimate interest of the medical profession in the United States and their representative or delegate feature is far more in accord with the modes of thought and action of all English-speaking people, than is the substitute proposed by the Committee on Revision. Then why not stop wasting valuable time every year in tinkering constitutions and by-laws? Neither the legitimate interests of the ASSOCIATION nor the value of its JOURNAL will ever be advanced by mere constitutional or by-law changes. They can be advanced only by such earnest, thoughtful, persistent work as will bring to every general meeting better addresses; to every Section more original papers and more thorough discussions; and to the JOURNAL more and better material for its pages. More patient scientific research, more complete aggregation of facts and close deductive reasoning, and more care in the preparation of papers, with less desultory talk or office hunting, should be the motto of every friend of the AMERICAN MEDICAL ASSOCIATION, not only at the coming meeting in San Francisco, but at all the meetings of the future. At least, such are the deliberate sentiments of one who has studied the practical working of medical organizations, and all other interests of the medical profession for nearly sixty years. Yours truly,

Chicago, Jan. 23, 1894. N. S. DAVIS.

### The Income Tax.

*To the Editor:*—The determination of Congress to adopt the income tax as a source of revenue, calls for some remarks on its application to practitioners of medicine. It is to be noted that there are no exemptions in the bill in favor of certain methods of earning a living, but that all incomes, no matter how created, are lumped together. Justice would seem to require a distinction to be made between certain and permanent incomes and those which are precarious. Some incomes result from investments and require no expenditure of work or money to earn them, on the part of those by whom they are enjoyed. Others are derived through personal services rendered to employers or the public, and perhaps inadequately paid for. Some incomes are not diminished by the temporary illness or absence from duty of their earners, while others are immediately arrested when they are even for an hour off duty. The President may go fishing for a week, and his *per diem* is paid as punctually as if he were at work in his office. But a medical man takes a holiday or occupies a sick bed only by paying a penal fine for the privilege. Nevertheless, the bill treats both incomes alike. The exemption of small incomes from the tax is not unjust, inasmuch as a minimum living income should be exempted, and also because small incomes are generally precarious and earned by personal services. But a medical man's personal service is even more disadvantageous than that of a mechanic working for wages in a factory. The latter is sure of pay for every hour he works; the doctor has all the risk of collecting his dues. Again, if the mechanic falls ill, his wages stop; but, on recovery, he resumes his income as before his illness. The medical man falling ill loses his income during his incapacity, and further loses many patients, who used to treat with him regularly, to some other doctors. He not only suffers loss of a portion of his income for the work that he was unable to do, but breaks up his business to a certain extent also. Hence, the physician is in a worse plight as a payer of income tax than even a mechanic.

The bill, to be just, should make a distinction between precarious and permanent incomes; and a special exemption should be granted medical practitioners on account of the risks that their earnings are subject to, beyond those of any other members of the community. Certainly, in returning an estimate of income a physician should be entitled to deduct so many days for necessary recuperation and illness; he should make another deduction for the difficulty of collecting his fees; which all State laws seem to increase; and he should make a further deduction for the extra cost over lawyers, ministers, office holders, clerks and mechanics which he has to incur in carrying on his business. It is a well-known fact that doctors who seem very prosperous have to expend almost up to the margin of their earnings to keep up their business. This is a subject for the county societies to discuss and, if possible, take action upon.

W. P. WHERY, M.D.

Fort Wayne, Ind.

### From Dr. Lewis.

CHICAGO, Jan. 22, 1894.

*To the Editor:*—Until you published Dr. Howle's answer—which is proper—to my communication on "Crime and Criminals," I hesitated to ask an explanation for the "heading" to my correspondence.

So, now, please state in the next number, that the "heading" to my correspondence was put to it in the JOURNAL office—not by me.

My objection to the JOURNAL heading is, that it is short three words; with these, it would read: "How to Encourage Criminals to Eschew Crime."

As to the answer, I beg leave to ask Dr. Howle to re-read my correspondence, for I am inclined to the opinion that he will find sufficient ground therein to justify his making a new version. This, however, I will leave to him and other readers of your most excellent JOURNAL to determine.

Respectfully, CHARLES J. LEWIS, M.D.

## ASSOCIATION NEWS.

OMAHA, Jan. 28, 1894.

*To the Editor:*—Proposed Amendment to Art. II, Sec. 2, Constitution of the Nebraska State Medical Society:

"That any legally qualified practitioner shall be eligible for membership in this Society, whatsoever his source of education, provided that he or she proclaims in writing adherence to no particular dogma or line of practice other than rational medicine."

Will some one kindly answer the following: Is there any reason in Code or Constitution of AMERICAN MEDICAL ASSOCIATION why the above amendment should not be adopted by the Nebraska State Medical Society? If such is adopted does the Nebraska State Medical Society lose its affiliation with the AMERICAN MEDICAL ASSOCIATION? This amendment is to be voted on this year.

Respectfully, GEORGE WILKINSON,
Sec'y Nebraska State Medical Society.

**American Medical Association.**—Don't forget about that $5 to be sent to Dr. J. B. Eagleson with your application for

membership in the AMERICAN MEDICAL ASSOCIATION. This is the opportunity of a lifetime for Pacific coast doctors and they must not forget it. To live in this region and not go to San Francisco this year, when you can take in the Midwinter Fair and the AMERICAN MEDICAL ASSOCIATION all at once and with fare the cheapest on record, would not only be a shame, but almost inexcusable. Pay that $5 now. Eagleson, you know, lives in Seattle.—*Medical Sentinel*, Portland, Oregon, January, 1894.

## SOCIETY NEWS.

**The Queen's County, N. Y., Medical Society** met January 30. Papers were read upon "Milk," "Appendicitis," "Infant Feeding," and "Long Island Water Supply."

**North Central Illinois Medical Association.**—Dr. J. C. Corbus of Mendota, was recently elected President of the North Central Illinois Medical Association, at the session held in Princeton.

**The King County (Wash.) Medical Society** at its regular annual meeting held at Seattle, Wash., January 22, elected the following officers for the coming year, viz.: President, Dr. W. A. Shannon; Vice-President, Dr. F. S. Palmer; Secretary, Dr. P. W. Willis; Treasurer, Dr. D. A. Mitchell.

**Gloucester County, Penn., Medical Society** held its annual meeting at Woodbury January 25. The following officers were elected: President, Dr. H. A. Stout of Wenonah; Vice-President, Dr. E. T. Oliphant of Bridgeport; Secretary and Treasurer, Dr. George E. Reading of Woodbury. Drs. S. F. Flick, M. Price and J. N. Rhoades of Philadelphia, were the guests of the Society.

**The Annual Meeting** of the Fulton County Medical Society, N. Y., was held at Gloversville January 11.

The following officers were elected: President, H. C. Finch; Vice-President, L. J. Dailey; Secretary, A. L. Johnson; Treasurer, J. K. Thorn; Board of Censors, W. C. Wood, J. E. Burdick, Eugene Beach. The afternoon session was devoted to the reading of papers and discussions on interesting topics. The following papers were read: "A Protest against the Excessive Use of Coal Tar Products," by Dr. Wood; "Food," by Dr. M. Helen Cullings. President C. M. Lefler gave an address on "Some Thoughts of a Physician on Modern Surgery." Those present at the meeting were: A. L. Johnson, L. J. Dailey, P. R. Furbeck, Wm. C. Wood, Eugene Beach, C. M. Lefler, I. DeZouche, J. K. Thorn, F. W. Shaffer, F. A. Mead, M. Helen Cullings, of Gloversville; D. S. Orton, Fish House, M. Francis Drury, H. C. Finch, Broadalbin; F. Beebe, John E. Burdick, J. W. Joslin, J. K. Young, of Johnstown.

**Capital District Medical Society.**—About thirty physicians from the central portion of the State attended the annual meeting of the Capital District Medical Society held at Springfield, Ill., January 18. The following officers were elected for the ensuing year: President, George N. Kreider, Springfield; Vice-Presidents, E. P. Bartlett, Springfield; W. M. Catto, Decatur; and J. W. Hairgrove, Jacksonville; Secretary, B. B. Griffith; Treasurer, E. J. Brown, Decatur; Judicial Council, C. E. Black, G. F. Stericker, L. J. Harvey, W. B. Hostetler and J. Townsend. The remainder of the session was devoted to the program as follows: "Rectal Surgery," J. W. Hairgrove; "Management of Natural Labor," L. A. Malone, discussion led by B. B. Griffith; "Disease of the Bladder and Kidneys," W. K. McLaughlin, discussion led by W. M. Catto; "Prophylaxis of Typhoid Fever," E. P. Bartlett, discussion led by L. J. Harvey; "Report of Three Cases of Graves' Disease," E. J. Brown; "Psychical Influence in the Treatment of Disease," J. S. King. At noon the Society adjourned and partook of a toothsome spread.

**Medical Society of the District of Columbia.**—Program of the literary exercises of the celebration of the seventy-fifth anniversary of the Medical Society of the District of Columbia, to be held at the National Rifles' Armory Hall, G. Street, between 9th and 10th Streets, N. W., Washington, D. C., Friday, February 16, 1894, beginning at 7:45 o'clock P. M.

Overture. Invocation, Rev. Wm. A. Bartlett, D.D. Address by the President, Samuel C. Busey, M.D., L.L.D. Music. Address of Congratulation, Theophilus Parvin, M.D., LL.D., Representative of the College of Physicians of Philadelphia. Music. Address—"History of the Medical Society of the District of Columbia," Wm. W. Johnston, A.M., M.D. Music. Address—"History of the Hospitals of the District of Columbia," J. Ford Thompson, M.D. Music. Address—"History of the Medical Colleges of the District of Columbia," Thomas C. Smith, M.D. Music.

Music by the U. S. Marine Band.

Committee of Arrangements.—Samuel C. Busey, M.D., Chairman; C. H. Stowell, M.D.; H. H. Barker, M.D., Treasurer; S. S. Adams, M.D.; T. E. McArdle, M.D.; G. B. Harrison M.D.; and Geo. C. Ober, M.D., Secretary.

## American Electro-Therapeutic Association.

*The Third Annual Meeting Held in Chicago, Sept. 12, 13 and 14, 1893.*

AUGUSTIN H. GOELET, M.D., President.

(*Continued from page 131*).

METALLIC ELECTROLYSIS.

*Case 8.*—L. S., 22 years of age; single. Prolapsed and anteverted uterus with subacute metritis; endometritis; endocervicitis; erosion and cystic degeneration. Uterus extremely painful on pressure; canal normal in depth; patulous; profuse muco-purulent discharge. Menstrual habit free, regular, but premature; recurring every three weeks. Duration 5 days. Dysmenorrhea spasmodic, beginning three days before the establishment of the menstrual function. Backache; constant frontal and vertical headache; capricious appetite; neurasthenic symptoms; urethritis; painful micturition.

March 22, 1893. Intra-uterine, fundal and cervical, cuprie electrolysis, 6 milliampères, for ten minutes; reversal to loosen the electrode. Application followed by slight colicky pains which lasted for twenty-four hours.

March 24. Reported herself better. Two more applications were made as above on the 24th and 27th. Less pain during and following the applications.

August 16. Patient reported that she had been very well ever since—now nearly five months ago. Dragging pain and backache entirely disappeared; leucorrheal discharge, slight, mucoid, and only once in two weeks. She eats and sleeps well; nutrition better, and she is less depressed. Urethritis entirely cured.

*Case 9.*—A. B., married; 34 years of age. June 14, 1893. Condition almost identical with that of the preceding patient, save that the uterus was retroverted, and the urethritis was severe. Two intra-uterine applications, fundal and cervical, of cuprie electrolysis at intervals of seven days, ten to fifteen milliampères; also applications to the interior of the urethra and to the eroded cervix were made. These were followed by marked improvement in all the symptoms. In this case, as in the other, treatment was followed by slight colicky pains, lasting to a greater or less extent during the subsequent twenty-four hours, and accompanied with abdominal soreness. Ultimate condition not recorded, because she did not return to the clinic after July 28, when she reported herself much better.

Gautier does not refer to the uterine colic which is liable to occur in intra-uterine cuprie electrolysis. The following case illustrates very clearly that this condition may follow on such treatment:

*Case 10.*—A. M., married. Dec. 20, 1893. Intra-mural fibroid; uterine measurement three and one-half inches; developed anteriorly and to the right; endometritis; severe dysmenorrhea. The usual pressure symptoms were present, and were first noticed in 1886. Patient had been treated with intra-uterine negative galvano-chemic cautery at intervals for a year or more. On Dec. 20, 1892, intra-uterine cupric electrolysis, electrode within the cavity of the *body*, thirty milliampères for eight minutes; reversal, fifteen milliampères for five minutes. This was followed by the most intense uterine colic I have ever seen. It was an hour or more before she could leave the office for her home. For three days, there was increased discomfort, but since then, the patient's health has been very much better than for nearly six years.

July 11, 1893. Menstruation accompanied with very little pain; able to attend to all her duties (the active ones of a business woman) with only a little rest on the second day. Before treatment she was obliged to go to bed during the time. She dates her improvement from the cupric treatment.

*Case 11.*—Mrs. P., 36 years of age; married. External and internal hemorrhoids. There was an immense cluster of external hemorrhoids, the largest being the size of a pigeon's egg. A number of smaller ones formed a ring around the anus. The internal ones frequently became strangulated, giving rise to intense pain.

Feb. 25 and 27, 1893. Two mild applications of cupric electrolysis C. S. five milliampères for three minutes were made to the external tumors. March 1. After applying cocain, an application of twenty-five milliampères was made to the internal tumors, and this treatment was repeated on March 3 and April 25. On May 9, she had a perfectly natural movement of the bowels, without pain, the first in years. She continued to improve up to June 6, when she passed from observation.

On September 6 I heard from this patient and she continued perfectly well. There has been no trouble whatever from the hemorrhoids since the last treatment.

DISCUSSION.

Dr. Morton said that the entire subject had been most admirably outlined in the paper. It was seldom that he rose to discuss a subject which he felt more important than this, for, instead of speculating on the action of the current, we could obtain the salts of the metals used in our soluble electrodes. Not only have we got a definite medicine which we can place at the point desired, but we can by means of the cataphoric action of the current drive this medicine deeply into the tissues. It is greatly to the credit of Gautier that he has gathered together the facts scattered through literature, and has built up the system which he calls "interstitial electrolysis." In the speaker's opinion it is better to call this treatment, "metallic electrolysis," for interstitial electrolysis may take place anywhere where there is a continuous current, regardless of whether or not the electrode is metallic. This idea that metals can be dissolved at the positive pole is by no means new. He had found in Butler's book, published in 1887 by the homeopathic firm of Boericke & Tafel, New York, a similar method of treatment. This author goes thoroughly into the subject of zinc electrolysis, and describes distinctly how the needle is changed into chlorid of zinc, and how one obtains the two actions—that of the current, and that of the zinc chlorid formed from the metallic electrode. He makes no reference, however, to gynecologic work. Gautier deserves the credit for developing this department, as well as the entire subject.

Dr. Morton then presented a number of instruments which had been devised and brought into use during the two years in which he had studied this subject.

The first instrument was a piece of flexible copper wire tipped at the end, and having a sliding insulation. It was used for treating the nasal cavity. A current of five to twenty-five milliampères was used, and the oxychlorid of copper thus deposited in the deepest recesses of these passages. A set of copper electrodes were also exhibited, which were devised originally by Dr. Goelet for intra-uterine treatment. The copper uterine sound first employed by Dr. Cleaves was also shown, as was also the "protected electrode," designed for use in a case of ulceration of the rectum. Dr. Morton said that the adhesion of the electrode was probably due to the formation of a soluble albuminate of copper—the soluble salt found, and alluded to in the paper. This adherence of the electrode is particularly marked in urethritis. When he first began to use cupric electrolysis, a patient who claimed to have had gonorrhea for three months presented himself. A current of two to three milliampères was used at first, but on increasing it to five milliampères the instrument was found to be adherent. About four or five minutes were occupied in the gradual withdrawal of the instrument. One year later the patient returned with a fresh attack. He stated that the discharge had entirely disappeared within two or three days after the first application. This second attack was treated in the same way and with the same good result. He had employed cupric electrolysis in a dermoid cyst on the side of the neck, measuring over one inch in diameter. The parts were made numb by electro-cataphoresis and cupric electrolysis performed for about ten minutes with twenty to thirty milliampères. On a previous occasion the cyst had been punctured, the fluid withdrawn, and an attempt made to secure decomposition of a solution of iodid of potassium injected into it, but this was a failure. The result of the second application was that the cyst gradually disappeared, leaving no trace except a tiny needle mark. The patient was unwilling to be cut, and was afraid to take ether.

When a copper bulb is placed against a hemorrhoid, the tumor can be seen to shrink under the electrolytic action.

There is probably no more common slight ailment than hypertrophic or atrophic rhinitis, and the gratifying results obtained from cupric electrolysis seem on this account specially interesting. Usually in three to five weeks, and after six or seven applications, they feel "cured." He was unable to say yet how long this relief would continue. In atrophic rhinitis, the effect of the treatment is: 1, a gradual increase of secretion; 2, disappearance of the scabs; and 3, a greater feeling of comfort in the nose. From a theoretical standpoint it would seem probable that the activity of a number of the glands not yet destroyed is restored by the treatment.

Foul sinuses may be very conveniently treated, as the antiseptic is manufactured as one proceeds.

Dr. Hayd said he had had no practical experience with the subject, but he thought there were certain objections. Just as soon as one magnifies the importance of local applications, one increases the dangers of intra-uterine medication. He had been led to believe that the effects of electricity were due, not so much to the local action of the current, as to the influence on the nerves and lymphatics supplying the part; for, if there were only a local effect, how could we explain the cure of certain conditions by electrolysis, when they had resisted curetting and the application of chlorid of zinc or nitric acid? In the second place, just as soon as the séance is prolonged, in intra-uterine applications particularly, the dangers of the treatment are increased. The mere fact that it is admitted that the electrode adheres to the tissues is in itself a very serious objection, for this adhesion will result in a trauma which will sooner or later prove disastrous. He thought there was a dangerous tendency in the Association to be unduly enthusiastic in the use of local applications, and until he had been assured that these recorded successes had been treated unsuccessfully by the ordinary electric treatment, he could not be convinced of the superiority of metallic electrolysis. The mere fact that a piece of meat may be stained by the copper or zinc did not prove to him that it is because of this deposit the results are obtained.

Dr. Massey said the objection raised by the last speaker regarding the dangers of intra-uterine applications did not apply to the *expert* use of such treatment where it seems to be imperative. He had employed such treatment for months at a time without mischief following.

He had been struck with the fact that in recent literature there had been a sudden reversion in favor of a more general use of the positive pole in electric applications. While our efforts are being directed to the action of the base metals with reference to the active pole, we forget that we have metallic electrolysis every time we use a galvanic current, unless the patient be protected by a very large pad. The clay is probably particularly useful, in that it catches the particles of copper or other metal derived from the plate used with the clay electrode as a conductor. A few years ago he employed iron wire in this connection, thinking that the introduction of the iron into the body would not be harmful; he found the iron disappeared so rapidly that it was impracticable to employ this metal at all.

In a case of prolapsed and ulcerated rectum he found that a current of forty to fifty ma., caused the reduction of the rectum when a carbon positive electrode was used, showing that it was the action of this pole and not of metallic electrolysis.

He had had some experience in atrophic rhinitis. In one case where he used what was supposed to be a 14 karat gold electrode, it was quickly tarnished by a current of six to seven ma. The effects of treatment were, however, very much disguised by the simultaneous application of cocain; this renders the treatment agreeable and probably more efficacious. One such treatment often relieves the sensation of obstruction for many days, and a treatment for six months will destroy the tendency of a patient to constantly "catch cold."

Dr. Green said that this valuable paper contained suggestions of uncertainty. He could not feel that this indiscriminate probing of the uterus is safe. Intra-uterine medication should be guardedly used. Again, while one can regulate the dose of electricity by the meter, he saw no way of regulating the dose of the metallic salt deposited by electrolysis.

He had treated one case of hydrocele occurring in a

gentleman who would not submit to the more usual methods A zinc needle was passed into the sac without withdrawing the fluid, and a current of seven ma. used for about fifteen minutes. On the withdrawal of the needle he was astonished at the large quantity of zinc which had been removed from the needle. The case was, however, promptly cured, and there had been no relapse.

DR. HAYES said that while there is much danger from intra-uterine treatment when employed indiscriminately, in properly selected cases and in the hands of experts it is not as dangerous as the introduction of medicine in any other way. By electrolysis more of the metal is introduced, and so gradually as not to excite the uterine colic ordinarily following other methods of this kind. The dosage is more accurate in fact than the administration of substances by the mouth, for a certain strength of current causes the deposition in the tissues of a certain amount of metal.

The adhesion of the positive pole to the tissues is to a certain extent a trauma, but it is very easy to limit this to the most superficial tissues; indeed the author had explained how the electrode could be liberated without causing injury to the tissues.

The paper also emphasized the activity of substances when in the nascent state. For example, a piece of beef stearin after being in the laboratory for several months has a much higher melting point than a piece freshly manufactured; in other words, the rigidity which it eventually assumes is such that it requires more heat to pull it apart than at first. This illustrates what is meant by the greater activity of substances when in the nascent state; hence it is obvious that this method of treatment has a power peculiar to itself. It also should not be forgotten that by cataphoresis the salt is deposited deeply in the tissues, and hence its vast superiority over such caustics as nitrate of silver. Those who have made a study of gonorrhea know that the reason it is not quickly cured by the usual injections is because the gonococcus penetrates deeply and lives in the submucous tissue. It would seem therefore that in metallic electrolysis we have a very superior method of treating this obstinate disease.

DR. GEHRUNG said that not only is the nascent condition important, but the medicine is carried in so gradually that one portion is swept along by cataphoresis before another particle is presented to the tissues, and so the spaces of the latter are not clogged up by the medicament.

THE PRESIDENT said he had at first called attention to the fact that although Gautier claimed that with cupric electrolysis there was relief from pain, it frequently excited intense uterine colic. For this reason he had looked upon it as dangerous. No harm followed in his cases, however, but the colic prejudiced the patient against the treatment. Further observation convinced him that the colic was due to insufficient drainage, the result of the astringent set free in a narrow cervical canal. He had subsequently made applications to some of these same patients where the uterine colic had been excited, and by previously dilating and keeping the cervical canal patulous had been able to avoid colic.

He did not use the copper applications so much in endometritis as he had done formerly, as he considered zinc superior. He knew of nothing equal to cupric electrolysis for the control of uterine hemorrhage at the time of the application. Its action is immediate; at most there is not more than a slight dribbling for a few hours after the application. It is by no means necessary to use the excessive current strengths recommended by Gautier; he usually employed twenty to thirty ma. for ten or fifteen minutes, and kept the electrode still, as he found that after turning off the current, if the instrument be carefully revolved on its axis it can be removed without doing violence to the tissues. He knew of nothing which would cure granular degeneration of the cervix so promptly and satisfactorily as zinc electrolysis. In one case after six applications of only ten ma. a very bad granular cervicitis was completely cured. He brushes the electrode over different parts of the surface, not to prevent its sticking, however, as this is not nearly so noticeable with zinc as with copper. He had not employed the iron electrodes referred to by Dr. Massey in cases of uterine hemorrhage.

Another useful application of cupric electrolysis is in fissure of the anus. With a current of five to ten ma. applied with a bare copper electrode for two or three minutes the cure has been prompt and satisfactory. Zinc electrolysis is also useful in promoting healing of the sac left after incision and evacuation of suppurating vulvo-vaginal glands.

Intra-uterine applications are perfectly safe in the hands of the expert gynecologist if perfect cleanliness and free drainage are secured.

He had treated a large keloid on the anterior surface of the thigh by punctures with zinc needles around the margin. Two prominent surgeons had refused to operate. The applications were made once or twice a week, and extended over a period of two months. After two months cessation of treatment there was absolutely no occasion for further treatment and the case was considered cured. It was found that there was less destruction of tissue and the result was better if only five ma. per needle were used, instead of ten, as employed at the beginning.

In one case three punctures with zinc electrodes and a current of ten to twenty ma. caused diminution of a hard uterine fibroid to one-third its former size. Some time before this one puncture had been made with a platinum needle and a current of fifty m. a., but without any result.

DR. CLEAVES, in closing the discussion, said she was very much averse to a great deal of the intra-uterine treatment advocated, as much of it is unnecessary; but in a certain class of cases she was satisfied quicker and more lasting results could be obtained. Nor could metallic electrolysis be objected to on this ground, as the applications were made only once in eight days, and not more than three in a month, while the entire course of treatment was markedly lessened. In cases of persistent cervical degeneration she had had exceptionally good results from zinc electrolysis. In one of the cases reported all the usual measures had proved ineffectual, and yet within a week after the zinc electrolysis there was a perfectly normal condition of the uterine cervix and the patient went on to complete recovery. She doubted very much if it were wise to move the electrode in the uterine cavity. The medicine certainly penetrates deeply. The dosage is more accurate than when administered by mouth, and infinitely more so than when applied by solution or stick, as then most of the application fails to reach the desired point. Gautier's experiments go to prove that no toxic effects are produced by this treatment. She believed there was no need of exceeding thirty ma., and in the case of severe uterine colic reported this was the strength used, and the application was made entirely within the body of the uterus.

She doubted if cocain had anything to do with the relief of the sensation of obstruction in the nose, for this follows very rapidly on cupric electrolysis.

The needles which she presented were the same as used by Gautier, while the electrodes she devised for the treatment of trachoma and granular conjunctivitis.

## PUBLIC HEALTH.

### A Bill to Establish a Department of Public Health.

The following is the Public Health bill recommended by the Committee of the AMERICAN MEDICAL ASSOCIATION, C. G. Comegys, M.D., Chairman:

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

SECTION 1.—That there shall be established a Department of Public Health. There shall be appointed by the President from the medical profession, by, and with the advice and consent of the Senate, a Secretary of Public Health who shall be intrusted with the management of the Department herein established. He shall be paid an annual salary of $8,000.

There shall be appointed by the President, with the approval of the Senate, an Assistant Secretary of Public Health, at an annual salary of $5,000.

The Secretary of Public Health shall, with the approval of the President, provide suitable offices for the Department, and shall employ such assistants and clerks as may be necessary.

SEC. 2.—It shall be the duty of the Secretary of Public Health to obtain through all accessible sources, including State Boards of Health, municipal authorities, and the Surgeon Generals of the Army, Navy and Marine Hospital Service of the United States, weekly reports of the sanitary condition of all ports and places within their territories and departments, and he shall publish weekly abstracts of the information thus obtained and other pertinent matters received by this Department. The said Department also shall, as far as possible, by means of the voluntary coöpe-

ration of State and municipal authorities, of various general and special hospitals, sanitariums, public associations and private persons procure and tabulate statistics of marriage, births (noting those that are illegitimate, and deaths from epidemic, endemic and all other diseases, specifying those of a degenerative character, such as malignant growths, and affections of the nervous, circulatory, respiratory, secretory, digestive and reproductive organs, and from violence, accidents, suicide, murder and data concerning the fruit of consanguineous marriages and the transmissibility of insane, alcoholic, syphilitic, nervous and malignant types of constitution to offspring and to evils of race miscegenation. He shall also procure information relating to climatic and other conditions beneficial to health and especially in reference to the most favorable regions in the United States for the cure or relief of chronic diseases, particularly tubercular consumption. He shall also procure information as to the prevalence and ruinous effects upon the body and mind by intemperance and prostitution. He shall endeavor to ascertain the extent, the origin and classification of insanity in the several States and territories of the country. He shall investigate the state of comfort of the laboring classes in respect to their lodgment, their trades, occupations, the healthfulness of their workshops and the contents of the atmosphere they habitually breathe, and the prevalence of premature degeneration of the nervous and muscular systems by the exactions of piece-work employment.

He shall obtain information as to the soundness of their food and purity of water supply. He shall ascertain the ages at which the children of the poor are put to work and its hindrance to their physical development, and their lack of common school education. He shall seek through the State Boards of Health information of the hygienic state of public school buildings respecting their illumination, ventilation and the presence of noxious elements in the circumnambient air. He shall seek information in regard to the pollution of streams and navigable waters and public and private wells. He shall attempt, through the coöperation of the authorized medical schools in all the States, to promote the most extended and thorough training of students in order to fit them for the responsible duties that devolve upon practitioners of medicine.

Besides the reports of the state of the public health which he shall make from time to time, the Secretary shall make an annual Report to Congress, with such recommendations as he may deem important to the public welfare, and the Report, if ordered printed by Congress, shall be done under the direction of the Department. The necessary printing of the Department shall be done at the Government printing office upon the requisition of the Secretary, in the same manner and subject to the same provisions as that of other printing for the several Departments of the Government.

SEC. 3.—The President is authorized, when requested by the Secretary of Public Health, and when the same can be done without prejudice to the public service, to detail officers from the several departments of the Government for temporary duty, to act under the Department of Public Health to carry out the provisions of this Act, and such officers shall receive no additional compensation except for actual and necessary expenses incurred in the performance of such duties. When a detail of such officers can not be made the Secretary, approved by the President, may employ such experts, and for such time and in such manner as the funds at the disposal of the Department may warrant.

SEC. 4.—That to defray the expenses in carrying out the provisions of this Act, the sum of fifty thousand dollars, or as much thereof as may be necessary, is hereby appropriated to be disbursed with the approval of the President, under the Secretary of said Department.

This Act shall take effect sixty days after its passage, within which time the Secretary and Assistant Secretary may be appointed.

He shall, whenever any epidemic disease is spreading abroad, or in any country which by commercial or other relations may endanger the health of the inhabitants of the United States, have power to call a conference of the Surgeon Generals of the Army, Navy and Marine Hospital Service and the executive officer or officers of the various State boards of health throughout the country, to consider and advise with him in regard to the best methods to be pursued to protect the country against the invasion of any such epidemic disease, and the results of such conference shall be, by the Secretary of Public Health, communicated to the President for such action as may be deemed wise and expedient.

SEC. — Repealing clause.

## Pennsylvania Sanitary Convention.

HARRISBURG, PA., Jan. 27, 1894.

The *Public Ledger* of Philadelphia, a sheet known all over the country for its conservatism and moderation says in its Harrisburg letter of yesterday: "Harrisburg is a city of conventions; but a more interesting assemblage than that which Governor Pattison called to order in the Supreme Court room this morning never met here. The Sanitary Convention under the auspices of the State Board of Health promises to be fruitful in results far-reaching and important." While the first of these two assertions may possibly be a little extravagant, the second is amply justified. This convention was in point of fact a conference between the State Board of Health and the local boards, the great majority of the latter having but recently come into existence, under the Act of 1893, "to enable boroughs to establish Boards of Health." It is safe to say that it marked a new era in health administration in this conservative old State. The two hundred delegates, representing more than one hundred boards, were there with one common purpose; that of acquainting themselves with the most efficient methods of discharging the important and responsible duties assigned to them by their respective municipalities. From the moment that the venerable Bishop McGovern concluded his opening prayer, until the announcement of adjournment by the Governor, attention never flagged for one moment. In the past, Pennsylvania has unquestionably been a laggard in the great march of sanitary reform. It needed ten years of earnest effort to obtain the establishment of a State Board of Health, and it has taken nearly the same period for that Board, seconded by the efforts of all the sanitarians of the State to procure the passage of a law to enable towns other than large cities, to provide themselves with this essential department of municipal government.

No one who looked into the eager faces of the intelligent, dignified, and for the most part cultured men who crowded the Supreme Court chamber to overflowing, and who reflected that they represented every section of the Commonwealth from the Delaware to the Ohio, and from Maryland to the Great Lakes, and who listened to the able and exceedingly instructive papers which were read, and the pertinent discussions and acute interrogatories which followed them, could doubt for a moment that "the former things had passed away," and that Pennsylvania was rapidly forging forward to a foremost place among those States which intelligently appreciate the necessity for official sanitary supervision.

The following is the program of the meeting. The practical character of the subjects can not fail to arrest attention. The opening address by His Excellency, the Governor, showed his entire sympathy with the movement, and his intelligent appreciation of the requirements for the protection of the public health:

FRIDAY, JANUARY 26, 1894.

1. Prayer, by the Right Rev. Thomas McGovern, D.D., Bishop of Harrisburg.
2. Opening Address, by His Excellency, Governor Pattison.
3. "The Authority and Mission of the Local Board of Health," by M. G. Lippert, Vice-President of the Board of Health of Phœnixville. Discussion (limited to five minutes for each participant).
4. "The Duties of Local Boards of Health in the Management of Contagious and Infectious Diseases," by Wm. H. Ford, M.D., President of the Board of Health of Philadelphia. Discussion.
5. "Sanitary Engineering, or, the Prevention of Preventable Diseases," by Howard Murphy, C.E., Engineer Member of the State Board of Health of Pennsylvania. Discussion.
6. "Sanitary Sins of Omission and Commission in our Common Schools," by S. T. Davis, M.D., President of the State Board of Health of Pennsylvania. Discussion.
7. "Powers and Possibilities of Local Boards," by Major M. Veale, Health Officer of Philadelphia. Discussion.
8. "How the State Board and Local Boards of Health may be Mutually Helpful," by Benjamin Lee, A.M., M.D., Secretary of the State Board of Health of Pennsylvania. Discussion.
9. "To what Extent should Compensation be made for Losses Sustained to Protect Communities in Cases of Contagious Diseases," by J. H. McClelland, M.D., Ex President of the State Board of Health of Pennsylvania. Discussion.
10. "The Local Board as a Sanitary Instructor," (illustrated by the stereopticon), by Joseph F. Edwards, A.M., M.D., Member of the State Board of Health of Pennsylvania.

Reception by His Excellency, Governor Pattison, at the Executive Mansion, to the visiting delegates, from 9 to 10 P.M.

SATURDAY, JANUARY 27, 1894.

11. Prayer, by the Rev. Dr. Dimmick, Pastor of Grace Church, Harrisburg.
12. "A Few Needed Reforms in the Health Service," by Crosby Gray, Esq., Department of Public Safety, Pittsburg. Discussion.
13. "A Paper," by Pemberton Dudley, M.D., Member of the State Board of Health of Pennsylvania. Discussion.
14. "The Ounce of Prevention," by Abraham M. Beitler, Director of the Department of Public Safety of Philadelphia. Discussion.

While all the essays were full of careful thought and useful suggestions, that of Major Moses Veale, the efficient Health Officer of Philadelphia and President of the State Quarantine Board, was so admirable a statement of the powers of boards of health, and of the manner in which those powers may be exercised to the best advantage, that the State Board of Health was requested by vote of the Convention to have it printed and distributed to all local boards as a circular of information.

So deep was the interest felt by the delegates, that the proposal to form a permanent association was received with enthusiasm. By-laws were adopted, making provision for an annual meeting, the publication of a volume of proceedings and the issuing of occasional addresses to the public. The Governor of the State was made President *ex officio*.

Dr. John H. Rauch, late Secretary of the State Board of Health of Illinois, who was in Harrisburg during the session of the conference, was invited to a seat upon the platform, and, by a rising vote, elected the first honorary member of the "State Associated Health Authorities of Pennsylvania." Dr. Rauch, in briefly acknowledging the honor conferred, took occasion to contrast the lavish expenditures made by the Legislature of Pennsylvania, his native State, for the cure of disease in appropriations to hospitals, amounting to about half a million dollars at each session, with the niggardly provision of $6,000 annually to its State Board of Health for the prevention of disease. He also complimented the State Board of Health on the results which it had accomplished with the very limited means at its disposal.

The officers elected were: Major Moses Veale, Health Officer of Philadelphia, First Vice-President; Hon. Thomas P. Merritt, ex-Mayor and member Board of Health of Reading, Second Vice-President; Dr. James H. McClelland of Pittsburg, former President of State Board of Health, Third Vice-President; William B. Atkinson, M.D. of Philadelphia, Medical Inspector to the State Board of Health for the Delaware District, Secretary; Jesse C. Green, M.D., member of the Board of Health of West Chester, Treasurer.

## MISCELLANY.

**Dr. J. L. Forwood** of Chester, Pa., was a delegate to the National Board of Trade which was in session in Washington last week.

**Dr. Acuff** of Franklin Junction, Va., was recently shot by an unknown assassin. The bullet was extracted and the Doctor is recovering.

**Nutmeg Quacks to Go.**—It is stated that hereafter the Connecticut State Board of Health will vigorously prosecute irregular medical practitioners, and if possible drive them out of the State.

**Millions for the Sick and Afflicted of London.**—It is estimated that not less than $27,000,000 will, in 1894, pass into the coffers of the various charitable institutions having their headquarters in London. Howe's *Directory of Metropolitan Charities* for the present year gives the above estimate.

**International Medical Magazine.**—The copyright and subscription list of this magazine has been sold by the J. B. Lippincott Company to the International Medical Magazine Company. Prof. John Ashurst of Philadelphia, Prof. Jas. T. Whittaker of Cincinnati, and Prof. Henry W. Cattell, will supervise its publication.

**No Good for Advertising.**—First Quack—Here is a letter it would not do for us to publish. A man writes: "I have just taken my first bottle of your medicine and I—"

Second Quack—Well?

First Quack—There it breaks off short and is signed in another handwriting, "See executor."—*Medical Sentinel, from Philadelphia Item.*

**Pennsylvania State Medical Examiners.**—On January 17, Governor Pattison of Pennsylvania, appointed the following State Medical Examiners under the act of May 18, 1893: H. G. McCormick, M.D., Williamsport, three years; Henry Beates, Jr., M.D., Philadelphia, three years; W. J. R. Kline, M.D., Greensburg; A. H. Hulshizer, M.D., Philadelphia, two years; N. S. Foster, M.D., Pittsburg, two years; J. E. Stillman, M.D., Erie, one year; Samuel W. Latta, M.D., Philadelphia, one year; seven Homeopaths, and seven Eclectics.

**Indianapolis Plans for a Pest House.**—President Hays of the Indianapolis Board of Public Health, presented the plans and specifications for a pest hospital to the Board of County Commissioners January 23. The estimated cost of the structure is between $5,000 and $6,000. The Commissioners took the matter under advisement.

**The New Mannlicher Missile.**—The London letter of the New York *Sun* contains the following paragraph regarding the new weapon of European armies, that is said to carry two miles and a half:

"The chief surgeon of the Roumanian army has been making grewsome experiments with the new Mannlicher rifle, with which the forces are being equipped. He placed a number of human bodies in rows, like soldiers on the field of battle. At 600 meters five bodies were placed a half yard behind each other. A single bullet went through three bodies in succession. Upon the soft parts of the bodies the wounds were perhaps less serious than those inflicted by the old-fashioned rifles, the hole made by the bullet being smaller and more even; but on the whole the injuries are far more terrible. The range of the new rifles is about two and a half miles."

**The Commissioner of Education.**—Upon the recommendation of the Secretary of the Interior the President has determined to continue Dr. William T. Harris as Commissioner of Education. Dr. Harris owes his retention to the facts that he is not in any sense a partisan and that he has made an excellent officer. He was appointed in 1889 by General Noble because of the great reputation made by him as Superintendent of the city schools in St. Louis. In 1888 he had voted for Mr. Cleveland for President. The office is not political and Dr. Harris has been so signally successful that eminent teachers in all parts of the country have united in requesting his retention.—*Washington Post.*

**In Quarantine at Vera Cruz.**—Prominent Americans detained with twenty-two smallpox patients on board the *Seguranca*. The Ward line steamship, *Seguranca*, from New York was quarantined off the port of Vera Cruz with twenty-two cases of smallpox on board January 18. Among those on board were James E. Ward and Joseph O. Ward of the Ward Steamship Company; Aaron Vanderbilt, the millionaire; several leading Catholic clergymen of the United States; Bishop Fitzgerald of New York; Rev. J. Thompson, the Methodist missionary in South America; Rev. S. P. Carver and wife, and Dr. O. E. McDonald, all of whom were on the way to the General Mexican Methodist Conference which opened at Orizaba. The ship was held by the authorities until full precautionary measures were taken. It is thought the pest was taken on board by a number of steerage passengers who embarked at Havana.

**The Missouri Medical College** is about to erect a capacious new building, on the completion of which it will vacate its old quarters on Twenty-second Street and Lucas Avenue. About three years ago the College absorbed the St. Louis Post-Graduate Hospital and Polyclinic Free Dispensary at the corner of Jefferson and Lucas Avenues. The new structure will be erected on the vacant lot adjoining the latter, which is now known as section 2 of the Missouri College. The lot fronts 60 feet on Jefferson Avenue and runs back about 150 feet. Thus, taken in conjunction with the Post-Graduate Building, which will be remodeled to harmonize with the new part, the Missouri Medical College of the near future will occupy a space of about 120 feet by 150 feet. A premium of $500 for the best plan is now being competed for by four selected architects. Plans and specifications are to be submitted early in February, and as soon as the award is made the work will be begun. The College as recon-

structed will be equipped with every facility for giving a complete medical and surgical education. It will have a complete hospital department and will be in all respects up to modern requiremenis. An outlay of about $65,000 is contemplated.—*St. Louis Post Dispatch.*

**The Young Doctor's Presence of Mind.**—"Speaking of doctors' bills," said Cooper, as he elevated his feet and lit a cigar; "I have recently had revealed to me a depth of nerve which I supposed was possessed only by gas men and plumbers. You know young Dr. De Ploma?"

"Yes."

"Well, you know when he was graduated and came here to practice he was pretty sweet on my daughter Grace for awhile?"

"Yes."

"Well, one roasting day last summer she met him down town while she was out shopping, and he asked her to have a glass of soda-water at Fizz & Foam's."

"Very nice."

"Wait. Little while after that he popped and Grace threw him over."

"Poor fellow!"

"Yes, Poor fellow! But he had his wits about him and yesterday I got this bill:

JAMES ALFRED DE PLOMA, M.D.
Office Hours.
12:01 A.M. to 11:59 P.M.

G. COOPER. Dr.
July 4. To treating daughter . . . . . $3.00.

—*Puck.*

**A Clinic as Reported in the Buffalo News of January 21.**

"DR.——s' BUSY DAY."

A series of three interesting operations was performed at the —— Hospital yesterday morning by Dr. ——. The operations took place in the clinic before a class of students from the —— Medical College.

The first was the removal of varicose veins from the leg of a man about 50 years of age. The leg was badly swollen up and discolored. The disease extended from a point about nine inches above the knee nearly to the heel. Dr. —— made an incision and very carefully removed the diseased vein. When he had finished, the under part of the leg had been opened up and laid bare for an extent of full 24 inches. The diseased portions were carefully removed and the incision sewed up and treated with antiseptic bandages.

It was an unusually extensive operation of the kind. At the base of the incision, near the heel, a hole about two inches in diameter was left where diseased portions had been removed. As the edges could not be drawn together by stitching, Dr. —— treated it by grafting on two pieces of skin removed from a healthy part of the patient's leg. The operation will probably prove to be very successful and will greatly relieve the patient.

The second operation was treating a woman's face by electrolysis. She had a bad congestion in the nose and in one cheek, suggesting the toper's nose, but Dr. —— assured the students that she had always been a sober hard-working woman, and that the condition of her face had been brought about by some other cause.

She was placed on the table and an electric current passed through the inflamed parts. The introduction of the electricity brought about certain chemic changes which will result in the restoration of the patient's face to the normal condition.

The third operation was for double hernia, and was performed by Dr. —— successfully.

Newspapers' clinics are always of interest, especially in a "series of three."

**The Congress of American Physicians and Surgeons.**—The specialists constituting the membership of the Congress of American Physicians and Surgeons, will meet in Washington, May 29. The sessions conclude June 1. Sessions of the Congress will be held in Metzerott's Hall, while the societies will meet in halls and rooms which will be provided.

The principal social affair of the Congress will be a dinner to be given at the Arlington on the evening of May 30. There will be 500 covers laid. This will take the place of the dinners which the individual societies have been accustomed to give.

A number of foreign physicians and the presidents of all the State medical societies have been invited to Washington as the guests of the Congress, and many of them have already signified their intention of being present.

The opening session of the Congress will take place on the afternoon of Tuesday, May 29, when there will be a discussion by the Anatomical Society of a paper on "Morphology as a Factor in the Study of Disease," by Dr. Harrison Allen of Philadelphia.

The next session, on the afternoon of Wednesday, will be devoted to the Climatological Association, and papers will be read on "Bacteriology," by D. Frank Abbott of New York, and "Diseases Produced by Sewer Gas," by Dr. A. Jacobi of New York. From 3:30 to 5 o'clock the Dermatological Association will discuss "The Distribution and Control of Leprosy in the United States." Addresses will be made on "Distribution," by Dr. J. N. Hyde of Chicago; on "Diagnostic Features'" by Dr. P. A. Morrow of New York, and on "Prophylaxis and Treatment," by Dr. J. C. White of Boston. This discussion will be participated in by Drs. William A. Hardaway of St. Louis, and James E. Graham of Toronto, Canada; G. H. Fox of New York, and Joseph D. Bryant of New York.

On Thursday afternoon the Genito-Urinary Association will listen to a paper on "Nephritis in Its Surgical Aspect," by Dr. E. L. Keyes of New York, which will be discussed by Drs. George Chismore of San Francisco, L. B. Bangs of New York, Francis S. Watson of Boston and W. N. Wishard of Indianapolis. From 3:30 to 5 o'clock the Gynecological Association will hear Dr. Goodell of Philadelphia discuss the paper on "The Conservative Surgery of the Female Pelvic Organs," by Dr. W. M. Polk of New York. The evening will be devoted to addresses by the President and the chairman of the local committee on arrangements, and a reception by President Cleveland.

The Congress will conclude its sessions on Friday, June 1. The early portion of the afternoon will be occupied by the Laryngological Association, and "Intra-nasal Surgery" will be discussed by Drs. J. Solis-Cohen of Philadelphia, F. J. Knight of Boston, George H. Lefferts and F. H. Bosworth of New York, W. C. Glasgow and E. F. Ingals. The Congress will conclude with a discussion by the Neurological Association on "The Influence of Infectious Processes on the Nervous System," which will be participated in by Drs. J. J. Putnam of Boston, E. C. Seguin of New York and Charles K. Mills and F. X. Dercum of Philadelphia.

## Philadelphia Notes.

**Jefferson Medical College Alumni Association Petitions the Board of Trustees for Reorganization of the College and Appointment of a Provost.**—Remarks have been circulating recently of great changes to be made at "Old Jeff," and the announcement of a four years' course is one indication of the action of the ferment, which has just attained another important development. The annual meeting of the Philadelphia Chapter of the Jefferson Alumni Association was held Saturday (January 20); Dr. W. W. Keen was in the chair. A large number of alumni were present and also most of the members of the Faculty. Dr. E. E. Montgomery was elected President of the Chapter, as the successor of Dr. Keen. The most important feature of the occasion was the unanimous adoption of a resolution requesting the Board of Trustees to appoint a member of the Faculty, Provost of the institution, so as to give it a responsible chief executive officer. Reorganization was also advocated by abolishing the present fee-system of the chairs, and substituting therefor a fixed salary to each member of the Faculty. This action is significant, not only from the fact that it was adopted enthusiastically and without a dissenting voice; but also on account of the presence of the members of the Faculty who thereby indicated their approval of the proposed changes. The resolution in referring to the duties of the Provost, suggests that he shall attend the meetings of the Board of Trustees, act as advisory counsel in suggesting names of candidates for vacancies in the teaching corps, recommend additions, and otherwise further the working of the institution and its general welfare. It is intimated that the income of the chairs will be reduced to $2,500 or $3,000 per year. In his address as retiring President, Dr. W. W. Keen spoke approvingly of the work of the Association, and the recent progress of the College, especially mentioning the good service rendered by Dr. Orville Horwitz who was elected one year ago to a clinical professorship. It is reported that the Trustees have already been apprised of the action of the Alumni Association and that the suggestions will probably soon be adopted by them.

## Hospital Notes.

**Railway Hospital.**—It is reported that the officers and employes of the Chicago, Milwaukee & St. Paul Railroad have decided to coöperate for the establishment of a hospital

on the line of that railroad, for the benefit of sick and disabled men in the Company's service. This hospital will be supported by contributions from the employes.

**St. Barnabas' Hospital**.—The Board of Trustees of St. Barnabas Hospital, St. Paul, Minn., has announced the medical staff for their new Hospital, as follows: Surgeons, Doctors J. C. Moore, Knut Hoegh, J. Clark Stewart and J. W. MacDonald; Physicians, Doctors Thomas S. Roberts, H. M. Bracken, J. T. Moore and C. H. Hunter; Specialists, Dr. A. W. Abbott, diseases of women; Dr. H. M. Morton, eye and ear; Dr. R. O. Beard, nervous diseases; Dr. M. P. Van der Horch, skin diseases; Dr. J. H. Martindale, throat and nose.

**Gifts to Charity Hospital and other New Orleans Charities.**—The late Thomy Lafon, a colored man of New Orleans, has left nearly the half of an estate of $500,000 to be distributed among the hospitals and asylums of the city above named. Charity Hospital will receive a bequest of $10,000, and the Louisiana Asylum, $3,000. The Catholic Colored Indigent Hospital will get $15,000, but the greater part of the large sum given away will reach institutions where white patients only are received.

**New Wooster Hospital.**—The Wooster Medical College Faculty of Cleveland, Ohio, met January 19. The Committee which had in charge the selecting of land for a new hospital reported that property could be purchased at reasonable rates. It was left in the hands of the Committee with power to do as it pleases after another interview with the owner of the land. The building of the new hospital will cost about $35,000. Dr. Frank E. Bunts of the Wooster Faculty, tendered his resignation in order to accept a position on the staff of the Western Reserve College. Dr. H. W. Rogers was elected to fill the vacancy in the Wooster College.

**New Hospital at Buffalo.**—A certificate of incorporation for the Buffalo "Fresh-Air" Mission Hospital was filed with the County Clerk of Erie County, January 24. The incorporators are Sherman S. Rogers, P. H. Griffin, Henry W. Sprague William H. Wright, Jr., William J. White, John R. Williams, Frederick Truscott, George L. Williams, Paul C. Ransom, Mary B. Utley, Harriet R. Milinowski and Helen W. Almy. The object of the corporation is to erect, establish and maintain a hospital for the care and treatment of children afflicted with cholera infantum and other diseases to which children are subjected. The Hospital is to be located in the town of Hamburg.

**New Orleans Marine Hospital.**—An item in a New Orleans newspaper states that the Government has again offered for sale the old Marine Hospital situated in swampy ground on Common Street toward Ponchartrain. This building was commenced in 1855, and never finished. During the war it was used as barracks, and subsequently was loaned to the city as a place for the temporary lodgment of colored insane. Latterly the city has used it for a workhouse. The building is only valuable for its old iron, that metal being the principal material used in its construction, and has twice before been offered for sale. The valuation by the Special Agent's Bureau was about $30,000, and the highest bid received was $19,000, which was rejected. The old pile cost the Government in the neighborhood of $500,000, and when the present new building was projected it was estimated that it would cost more to complete the old building, than to buy a salubrious site and erect a new one, which was accordingly done.

## THE PUBLIC SERVICES.

**Army Changes.** Official list of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from January 20, 1894, to January 26, 1894.

First Lieut. EUCLID B. FRICK, Asst. Surgeon U. S. A., is relieved from duty at Ft. Keogh, Mont., and ordered to Ft. Townsend, Wash., for duty at that post, relieving Capt. ROBERT R. BALL, Asst. Surgeon. Capt. BALL, on being relieved by Lieut. FRICK, will report in person to the commanding officer, Ft. Monroe, Va., for temporary duty.

First Lieut MADISON M. BREWER, Asst. Surgeon, will, upon the arrival of Capt. BALL, be relieved from temporary duty at Ft. Monroe, Va., and will return to his proper station, Ft. Riley, Kan.

**Navy Changes.** Changes in the Medical Corps of the U. S. Navy for the week ending January 27, 1894.

Surgeon J. L. NEILSON, from Naval Medical Examining Board, and to Boston Navy Yard.

Surgeon R. A. MARMION, from Boston Navy Yard, and to Smithsonian Institution.

Surgeon C. U. GRAVATT, from Smithsonian Institution, and to the "Dale."

Surgeon E. H. GREEN, from the "Dale," and to the "Marblehead."

P. A. Surgeon A. C. H. RUSSELL, ordered as member of Naval Medical Examining Board.

P. A. Surgeon T. A. BERRYHILL, ordered to duty at Naval Laboratory and Department of Instruction.

Surgeon H. J. BABIN, ordered as member of Board of Inspection and Survey.

Medical Inspector F. L. DUBOIS and Surgeon C. A. SIEGFRIED, appointed delegates to the Eleventh International Medical Congress to be held at Rome, Italy, March 29 to April 5, 1894.

**Marine Hospital Changes.** Official list of changes of stations and duties of medical officers of the U. S. Marine Hospital Service, for the five weeks ended January 20, 1894.

Surgeon P. H. BAILHACHE, detailed by the President as delegate to International Sanitary Conference in Paris, France, Jan. 15, 1894.

Surgeon H. W. SAWTELLE, detailed as chairman of board for physical examination of officer, Revenue Marine Service, Jan. 19, 1894.

Surgeon H. W. AUSTEN, to represent the Service at International Medical Congress, Rome, Italy, Dec. 16, 1893.

Surgeon G. W. STONER, granted leave of absence for seven days, Dec. 22, 1893.

Surgeon FAIRFAX IRWIN, to proceed to St. Petersburg, Russia, for duty, Dec. 28, 1893. To proceed to Paris, France, for temporary duty, Jan. 16, 1894.

Surgeon H. W. CARTER, to report at Bureau for temporary duty, Dec. 17, 1893.

P. A. Surgeon C. E. BANKS, detailed as recorder of board for physical examination of officer, Revenue Marine Service, Jan. 19, 1894.

P. A. Surgeon C. T. FECKHAM, granted leave of absence for seven days, Jan. 6, 1894. Granted leave of absence for six days, Jan. 11, 1894.

P. A. Surgeon A. H. GLENNAN, granted leave of absence for five days, Dec. 20, 1893.

P. A. Surgeon S. D. BROOKS, to proceed to Sandusky, Ohio, as Inspector, Jan. 17, 1894.

P. A. Surgeon J. H. WHITE, granted leave of absence for thirteen days from Dec. 18, 1893.

P. A. Surgeon P. M. CARRINGTON, granted leave of absence for thirteen days from Dec. 18, 1893.

P. A. Surgeon L. L. WILLIAMS, granted leave of absence for fourteen days, Jan. 17, 1894.

P. A. Surgeon W. D. BRATTON, to proceed to Wilmington, N. C., for duty, Jan. 9, 1894.

P. A. Surgeon R. M. WOODWARD, granted leave of absence for ten days, Dec. 18, 1893. Granted leave of absence for fourteen days, Jan. 17, 1894.

P. A. Surgeon J. B. STONER, to proceed to Marshfield, Ore., as Inspector.

P. A. Surgeon G. M. GUITERAS, to proceed to New Orleans, La., for duty.

P. A. Surgeon J. C. PERRY, to proceed to Norfolk, Va., for temporary duty.

Asst. Surgeon G. B. YOUNG, granted leave of absence for three days, Jan. 1, 1894.

Asst. Surgeon B. W. BROWN, granted leave of absence for thirty days, Dec. 16, 1893.

Asst. Surgeon M. J. ROSENAU, to proceed to Evansville, Ind., for temporary duty, Jan. 13, 1894.

Asst. Surgeon C. H. GARDNER, to proceed to San Francisco Quarantine for temporary duty, Dec. 22, 1893.

Asst. Surgeon J. A. NYDEGGER, granted leave of absence for twenty-three days, Dec. 20, 1893.

Asst. Surgeon J. H. OAKLEY, granted leave of absence for twenty-five days, Dec. 20, 1893.

Asst. Surgeon SEATON NORMAN, granted leave of absence for thirty days, Jan. 15, 1894.

Asst. Surgeon EMIL PROCHAZKA, to proceed to Louisville, Ky., for duty, Dec. 26, 1893.

### LETTERS RECEIVED.

(A) Andrews, J. B., Buffalo, N. Y.
(B) Bailey, W. J., Louisville, Ky.; Bridge, Normal, Los Angeles, Cal.; Ball, J. Keokuk, Iowa; Baker, Jno. C. & Co., Philadelphia, Pa.; Bennett, R. G., Pittston, Pa.; Bates & Morse Advertising Agency, New York, N. Y.; Bombaugh, C. C., Baltimore, Md.; Buchtel, W. H., Denver, Colo.
(C) Collisl, N., Detroit, Mich.; Crowley, T. N., Terre Haute, Ind.; Cates, B. B., Knoxville, Tenn.; Chapman, Willis E., Ann Arbor, Mich.; Cutter, E. & J. A., New York, N. Y.
(D) Delaney, W. E., State Run, Pa.; Dodson, J. W., Wilkeson, Wash.; Duke Casper, Gaithersburg, Md.; Davis, Geo. S., Detroit, Mich.
(E) Eagleson, Seattle, Wash.; Ellis, Griffith, Dayton, Ohio; Ellis, P. V., Marshalltown, Iowa.
(F) Ford, Chas., New York, N. Y.; Fitzpatrick, T. V., Cincinnati, Ohio; Fee, C. S., St. Paul, Minn.; Fausett, R. C., North Jackson, Ohio.
(G) Gurney, J. H., Washington, D. C.; Guild, W. H. & Co., Boston, Mass.
(H) Hay, Thomas, Philadelphia, Pa.; Hiett, Jno., Grant, Iowa; Hayes, D. J., Milwaukee, Wis.; Hawley, C. W., Chicago, Ill.; Hummel & Parmele, Philadelphia, Pa.; Hunter, Jesse A., Sandusky, Ohio.
(J) Jordeen, Edwin O., Chicago, Ill.; Johnson, W. B., Paterson, N. J.
(K) Krogstad, A. E. Duluth, Minn.; Keister, B. C., South Boston, Va.
(L) Lyons, J. A., Chicago, Ill.; Leisenring, H. G., Wayne, Neb.
(M) Meyer, Adolph, Kankakee, Ill.; McGahan, C. F., Aiken, S. C.; McGarvey, C. W., San Luis, Colo.
(N) Newman, H. P., Chicago, Ill.; Nixon, H. G., Hartland, Wis.
(O) Ohmann-Dumesnil, A. H., St. Louis, Mo.
(P) Pendleton, F. Milford, Magnolia, Ill.; Panton, A. C., Portland, Oregon.
(R) Rutherford, F. A., Grand Rapids, Mich.
(S) Schooler, Lewis, Des Moines, Iowa; Sutton, R. S., Pittsburg, Pa.; Steiger, E. & Co., New York, N. Y.; Scheiffelin, W. H., New York, N. Y.; Scott, A. J., Londonville, Ohio; Scott & Brown, New York, N. Y.
(T) The Review, Springfield, Minn.; Turner, S. W., Chester, Conn.; Todd, S. S., Kansas City, Mo.; The University of Maryland, Baltimore, Md.
(W) Warner, W. R., & Co., Philadelphia, Pa.; West, W. F., Waxahachie, Texas; Waxham, F. E., Denver, Colo.; Webster, S. H., Troy, N. Y.; Williams, D. H., Chicago, Ill.
(Y) Yates, W., Chicago, Ill.